

# BOROUGH OF EASTBOURNE.



## Annual Report

FOR 1909 ON THE

## HEALTH OF EASTBOURNE

Vital Statistics, Sanitary Work, etc.

W. G. WILLOUGHBY, M.D. LOND.,

M.D. Lond. in State Medicine;

M.R.C.S. Eng.; L.R.C.P. Lond.;

Diplomate in Public Health of Cambridge University.

MEDICAL OFFICER OF HEALTH.

EASTBOURNE :

V. T. SUMFIELD, Printer and Lithographer, Station Street.

# SANITARY DEPARTMENT, 1909.

## SANITARY COMMITTEE, 1908-9

Mr. Alderman ROWE, *Chairman*.

*The Mayor* (Mr. Alderman MARTIN, J.P.).

Mr. Councillor HOLLINS, *Deputy-Chairman*.

Mr. Alderman KEAY.	Mr. Councillor FOX, J.P.
„ Councillor BRADFORD.	„ „ HARDING, J.P.
„ „ BREACH.	„ „ HERRIDGE.
„ „ CORNWELL.	„ „ PRIOR.

## 1909-10.

Mr. Councillor HOLLINS, *Chairman*.

*The Mayor* (HIS GRACE THE DUKE OF DEVONSHIRE).

Mr. Alderman ROWE, *Deputy-Chairman*.

Mr. Alderman KEAY.	Mr. Councillor FOX, J.P.
„ „ MARTIN.	„ „ HARDING, J.P.
Mr. Councillor BRADFORD.	„ „ HERRIDGE.
„ „ BREACH.	„ „ PRIOR.

## STAFF.

*Medical Officer of Health :*

W. G. WILLOUGHBY, M.D. Lond., M.R.C.S., D.P.H.

*Assistant Medical Officer of Health :*

ALICE OBERDORFER, M.B., Ch.B., Vict., D.P.H.

*Sanitary Inspectors :*

E. G. SPEARS, Cert. S.I. (Cavendish, Roselands, and Redoubt Wards) (L.G.B.) (Chief).

J. H. OLLETT, Cert. S.I., R.P.C. (Meads, Devonshire, and Central Wards).

S. R. HENDERSON, Cert. S.I. (St. Mary's and Upperton Wards).

*Meteorologist :*

S. R. HENDERSON, Cert. S.I.

*Clerks :*

Messrs. W. W. BROWN and S. H. CANNON.

*Assistant Disinfectors, etc. :*

R. GAY.

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# BOROUGH OF EASTBOURNE,

## 1909.

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SITUATION.—Latitude,  $50^{\circ} 46'$  N. ; Longitude,  $0^{\circ} 17'$  E.

ELEVATION OF THE AREA BUILT OVER.—Varies from 140 feet above (at West end) to 4 feet below high-water mark (in East of the Borough.)

SLOPE.—From West to East. ASPECT.—South and South-East.

AREA.—Of the Borough, 5,710 acres, including foreshore 332 acres ; of the part built over, about 2,000 acres.

DENSITY OF POPULATION.—For the Borough, 8·8 persons per acre ; for the Town, about 45.

NO. OF INHABITED HOUSES.—At Census (April, 1891), 5,190 ; at Census of 1901, 7,088 : Informal Census (October, 1907), 8,617.

POPULATION.—Census (1891), 34,960 ; Census (1901), 43,344 ; Estimated at the middle of 1909, 52,000 ; Local Census, Oct. 8th, 1907 (Tuesday), 50,694 ; Oct. 6th (Sunday), 51,345.

RATEABLE VALUE.—£427,676 5s. od.

GENERAL DISTRICT RATE, 3s.  $0\frac{1}{2}$ d. POOR RATE, 2s. 7d.  
Total, 5s.  $7\frac{1}{2}$ d.

BIRTH-RATE, 16·84 per 1,000 ; Males, 437 ; Females, 439.

DEATH-RATES.—Including all deaths, 10·61 ; excluding deaths of visitors, 10·0 per 1,000.

Zymotic, *i.e.*, from the seven principal Zymotic diseases, 0·50 per 1,000 (England and Wales, 1·12 per 1,000).

Infantile Mortality, 81 per 1,000 births.

MEAN ANNUAL TEMPERATURE.—49·9 degrees Fahr. (1908, 50·5).

HOURS OF BRIGHT SUNSHINE RECORDED.—1,904 hours. (1908—1,932.

TOTAL RAINFALL.—35·15 inches. (1908—25·80).

To His Worship the Mayor, and to the Aldermen  
and Councillors of the Borough of Eastbourne.

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GENTLEMEN,

In accordance with Section XIV. of the Local Government Board Order as to the duties of the Medical Officer of Health, I have the honour of submitting herewith my Sixteenth Annual Report on the Health of Eastbourne, its Vital Statistics, and the work of the Sanitary Department during the year 1909.

I have also, in accordance with Section 132 of the Factory and Workshops Act, 1901, to submit a special report on the work done under the Factory and Workshops Acts. This is incorporated with the following Report under the division of Sanitary Work. The Register of Workshops, which has to be kept by the Authority, is duly kept in my Department.

In accordance with instructions, copies of this Report have been sent to the Home Office, to the Local Government Board, and to the County Council.

A memorandum of the Local Government Board sets forth what the Medical Officer of Health has to report upon, and I have followed the instructions of the Board.

The Report is on the lines of previous Reports, so that comparison and reference may be easy. What repetition there is of matters previously detailed is necessary so that each year's Report shall be complete in itself.

The Hospital Report and the Report on the Schools are issued separately.

The details of the Report will shew that the Sanitary Staff has had a particularly heavy year. Owing to the continued growth of the Borough and the addition of new work, it is fortunate that the steady work of previous years has made such a number of the duties lighter.

Although the notifications of Infectious Disease were temporarily higher in number, the Report will shew that the general health of Eastbourne was excellently maintained. At the time of publication of this Report the temporary excess in the number of cases of infectious illness has quite ceased.

In only two years has there been a lower death-rate, viz., 1897 and 1908, and then the rate was but a fraction lower. A death-rate of but 10·61 per 1,000 in a population of over 50,000 is eminently satisfactory, including as it does deaths of visitors and of persons in the Infirmary and general Hospital from districts surrounding the Borough. The death-rate for England and Wales was 14·2 per 1,000.

Another indication of general healthiness is the remarkably low Infantile Mortality-rate of 81 per 1,000 births as compared with the 109 of the country generally. This rate was far lower in 1909 than in any previous year and seems quite as low as can be maintained in any community.

The work among the children of the School Nurse, newly appointed in 1909, cannot be too highly appreciated.

A feature of the work in 1909 was a rapid house to house visit in the Eastern District by an extra Inspector employed for about three months for the purpose—otherwise the work has been much as usual.

The constant overlapping of the duties of the Medical Officer of Health and the School Medical Officer as the work of the latter has developed, has shewn how important it is that the two offices should be combined, as in Eastbourne, wherever possible.

In the many extra duties involved in the temporary increase of notifiable illness and in other work, I have been very glad of the useful help of Dr. Alice Oberdorfer at times when she was not engaged in duties connected with the Medical Inspection of School Children.

The Sanitary Inspectors, Messrs. Spears, Ollett, and Henderson, have again done excellent work at all hours, and this cannot be adequately shewn merely by the summary tables of this Report.

The duties have, as usual, been rendered lighter in the infectious disease work by the kind co-operation of members of the Medical profession, who collectively and individually have always shewn in Eastbourne such readiness to co-operate with the Sanitary Authorities for the good of the Borough. I also thank, very sincerely, the Members of the Council, and particularly the Members of the Sanitary Committee, for their uniform kindness throughout the year.

I am, Gentlemen,

Your obedient Servant,

W. G. WILLOUGHBY.





## THE BOROUGH.

THE Borough of Eastbourne, situated in Lat.  $50^{\circ} 46'$  and Long.  $0^{\circ} 17' E$ , has been formed by the union of the original civil parish of Eastbourne with that portion of the old parish of Willingdon nearest the sea and known as Norway.

The name "Eastbourne" throughout this report refers to the Municipal Borough formed as above, and the statistics apply to the Borough and not to the original parish of that name, nor to the Registration District No. 70 "Eastbourne" used in the Registrar-General's reports and which includes a wider area outside the Borough.

The total acreage of the Borough is 5,710 acres, made up of 5,362 acres of land, 16 acres of inland water and 332 acres of foreshore.

About two-thirds of the 5,710 acres in the Borough, on the north and especially on the west sides, consist of agricultural and pasture lands, and the remaining third on the south-east is built on and forms the town and faces the sea. The houses are built close to the boundaries of the Borough, only in one direction, viz., along the Willingdon Road, so that the town is completely surrounded by sea or by agricultural land in all directions.

The Borough is divided into eight Wards and into nine Ecclesiastical sub-districts.

For statistical purposes the divisions of the four old Wards are still used in this Report, for they are convenient for comparison with the statistics of previous years. Moreover, the areas are the most convenient for the arrangement of the work of the Sanitary Inspectors. Statistics as to the whole Borough are given therefore, and also those of the following four districts co-extensive with, and of the same names as those of, the old Wards.

The Eastern District, including Cavendish, Roselands, and Redoubt Wards.

The Central District, including the Central and Devonshire Wards.

The West District, including Meads Ward.

St. Mary's District, including St. Mary's and Upperton Wards.

The Ecclesiastical Parishes are St. Mary's, St. John's, All Saints', St. Saviour's, St. Peter's, Holy Trinity, All Souls', St. Anne's, and Christ Church. They are very unequal in population, varying, according to the 1901 census, from 13,660 persons in Christ Church to 354 in St. Peter's.

The Meads Ward, with the exception of a small portion, consists of high class and expensive houses and schools. Devonshire Ward is much of the same character over half its extent, and the other half contains smaller residences and roads that have shops. With the exception of portions of each Ward on and near the Sea Front, the Cavendish, Central and Redoubt Wards contain mostly dwellings for the artizan class, and shops; and the Roselands Ward is entirely of this description. Upperton is a ward of residential houses, and the St. Mary's Ward, containing the Old Town of Eastbourne, consists of all classes of property. The Central and Cavendish Wards are the most densely populated, and there are no recreation grounds in them except the sea front.

The principal institutions from a sanitary point of view are the following :—

The Borough Infectious Diseases Hospital in St. Mary's Ward.

The Isolation Cottage in the East Ward.

The Union Workhouse and Infirmary in St. Mary's Ward.

All Saints' Convalescent Home in the West Ward.

The Princess Alice Hospital in St. Mary's Ward.

Other institutions are the Upwick Vale Home, the Homœopathic Cottage Hospital, and Convalescent Home.

Just beyond the Borough boundary in the East is the Langney Hospital for Small Pox, which, although outside the Borough, belongs to the Eastbourne Sanitary Authority.

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### **Site, Soil, etc.**

The Borough is situate on and at the foot of a slope running chiefly from the Downs on the West to the level ground at the East end of the South Downs.

The highest point of the Borough on the Downs is about 590 feet above sea level, but the elevation of the portion covered by houses varies from about 150 feet above, in the West, to 4 feet below high-water mark in the East. The Downs shelter the town from the West and South-West, the latter being the direction of most of the storms or gales. The front of the town is open to the sea facing South and South-East, and this ensures a very large amount of sunshine, as is shown by the sunshine record.

One of the most satisfactory characteristics of Eastbourne is the large extent of the Borough compared with the number of its houses and population. The large extent and number of open spaces and gardens conduce to its healthiness. The earlier estates that were laid out were excellently planned in this respect.

With the large extent of free and open sea front along the South and South-East and the Downs on the South-West and West free and open to the public, Eastbourne is well provided with open space around it.

Though Eastbourne is well off as regards open situation, the continued improvement in the available space for recreation in the Redoubt Ward is very satisfactory.

In St. Mary's district the recent permanent acquisition of the Gildredge Park is important from a health point of view.

While these newer "lungs" are very important, the old "Recreation Ground" in Seaside is even more so as a necessary "lung," surrounded as it is by a thickly-populated neighbourhood.

The ornamental garden at Motcombe, generously given by His Worship the Mayor to the Borough, will shortly be opened to the public.

As long as provision for permanent open spaces is made in the East as building progresses, Eastbourne will continue to be a most favoured town as regards open spaces, and this is one of the essences of skilled "town planning."

If it could be arranged, the playgrounds of certain of the Elementary Schools should be open to children beyond the ordinary school hours as playing places, especially as the numbers of motors are so much on the increase in the streets.

Geologically there is much variation in the soil in the different parts of the Borough. Eastbourne is for the greater part on chalk, which is a very healthy sub-soil. There is a comparatively small amount of clay soil in the central part of the town, and a strip of upper greensand, which is narrow along the Grand Parade and widens as it passes from West to East to about Bourne Street, where it narrows again until it ends about half-a-mile east of the Pier. The remainder of Eastbourne in the East is on alluvium and on the beach.

Of the Wards, Meads and St. Mary's are entirely on chalk, and Upperton almost entirely so. The Central and Eastern Districts are to a small extent on chalk and greensand, but mainly on alluvium and shingle, with a little clay. Valley gravel covers the chalk and greensand in the valleys.

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### **Meteorology.**

Full details of the Meteorology of Eastbourne are given in the Annual Report of Mr. S. R. Henderson, who takes the readings daily. The work at Eastbourne, where readings have to be taken every day throughout the year in all weathers, at 9 a.m., 6 p.m., and 9 p.m., is decidedly heavy, independently of the mathematical and clerical part of the work, but it is worth while to have Eastbourne a special Meteorological Station, and we always keep the department in accord with the wishes of the Meteorological Office in London.

The instruments were originally in five places; now by the kindness of the Compton Estate all but the sunshine recorder and barometer are in the triangular portion of ground outside Devonshire Park in Carlisle Road. Rain gauges and thermometers of all kinds are here; the two sunshine recorders remain by kind permission on the Grand Hotel and Pier respectively, while the barometer remains in the Shelters on the Grand Parade. The present grouping is convenient and satisfactory. The sunshine recorder on the Grand Hotel is the one from which the records are taken.

The outstanding feature of the Meteorology of England generally and of Eastbourne in 1909 was the large amount of rainfall.

Eastbourne's wettest time in recent years has been about the end of October, and in 1909 there was no exception.

The rain fell in months as follows :—

			Inches.				Inches.
Jan.	...	...	1'32	July	...	...	2'65
Feb.	...	...	0'50	Aug.	...	...	3'72
Mar.	...	...	4'03	Sept.	...	...	4'43
April	...	...	2'01	Oct.	...	...	6'25
May	...	...	1'26	Nov.	...	...	1'28
June	...	...	2'20	Dec.	...	...	5'50

Following the practice of recent years, some of the meteorological data for the year 1909 have been arranged in a table in the Appendix to this Report, where a coloured chart is also given, showing in a graphic manner some of the principal meteorological items and the deaths, daily and week by week respectively.

Among the facts shown in this chart and the tables are the following :—

Rainfall for the year, 35'15 inches.

Number of days on which rain fell, 181.

Highest recorded barometric reading, 30'73 inches on January 4th, at 9 a.m.

Lowest ditto, 28'79 on December 4th, at 9 a.m.

Highest recorded temperature in the shade, 79'5 degrees on August 9th.

Lowest ditto, 18'4 degrees on March 5th.

Total amount of sunshine, 1,904 hours.

Number of sunless days, 67.

Mr. Henderson's complete report compares these figures with the averages. As compared with 1908, there was an increase of nearly ten inches of rainfall and twenty-seven more rainy days. There were fourteen more sunless days and twenty-six less hours of sunshine. Diarrhœa, the disease most closely correlated with high summer temperatures, was much less prevalent in 1909 than in 1908, and was well under the prevalence of former years. Other factors, of course, are equally important, but the meteorological conditions are especially important in this disease.

After holding the record for two years for having most hours of sunshine of any place in England, Eastbourne in 1908 was a few hours behind the record, though close to the top. In 1909 Eastbourne is again nearly at the top.

The instruments, except for various necessary repairs, are just as in former years. Some recording wind and rain gauges would make the station more complete.

The Meteorological Station is regularly visited by Inspectors from the Meteorological Office. Monthly reports are circulated amongst members of the Committee and others, weekly reports are sent to certain papers, and daily reports are telegraphed to the Meteorological Office and to leading daily papers.

The Grand Hotel Company and the Pier Company kindly permit us to keep sunshine recorders on their premises.

The equability of the climate of Eastbourne, and the absence of intense heat in summer, have, as usual, been markedly shewn by the comparative reports of the Meteorological Office published in the Registrar-General's quarterly returns. More important still is the evidence given by the notable smallness of the number of deaths from Respiratory diseases.

The proximity of the sea, and our peninsular position, open to the South-East, ensure the equability of climate, and while we avoid extremes of cold in winter, we do not get extremes of heat in summer. In one year recently the difference in temperature in London and Eastbourne on the hottest day of the year in London was nineteen degrees.

Mr. Henderson's report gives full meteorological data.

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### **Water Supply.**

The Eastbourne Water Supply maintains its excellence both in quantity and quality, and the various analyses throughout the year have been always satisfactory.

The water is obtained from deep wells and headings in the chalk. The whole of the water comes from the pumping station and headings at Friston, about four miles from Eastbourne. The district which forms the gathering ground is very suitable for the purpose and well looked after.

Freedom from possibility of pollution is the great point aimed at and achieved, and not merely satisfactory analyses.

The headings are at a great depth from the surface, varying from 150 to 350 feet.

The water is pumped into distributing reservoirs in Eastbourne, but is not stored in any case beyond a day or two.

The supply is constant and at full pressure all the year round, and the consumers know no difference in the supply, whether it is a year of large or of little rainfall.

The Waterworks are in the hands of a private Company, and I am indebted to Mr. A. J. Howard, the General Manager, for the information given as to quantity used, etc.

The Water Company has two subsidiary sources of supply, viz., at Holywell and at Wannock, but neither of these sources has had to be drawn upon during 1909. Friston supplied abundant water all the year round. The old Bedford Well has not been used.

For water from wells in chalk the Eastbourne water has a remarkably small hardness, viz., about  $14\frac{1}{2}$  degrees, Clark. The Eastbourne water is as soft as, or softer than, any of the London waters, whether derived from rivers or wells.

Analyses of the water have been made constantly, with special full reports once monthly at least, both by Professor Frankland and Mr. Wynter Blyth, the Borough Analyst; partial analyses have been made weekly. These are, of course, important, but reliance is placed chiefly in keeping the sources unimpeachable. An example of the monthly report is attached.

For ordinary domestic purposes there is no need for any artificial softening of the Eastbourne water.

The amount of water pumped into Eastbourne for consumption from the various sources varied from  $10\frac{1}{2}$  million gallons per week to  $17\frac{1}{4}$  million gallons per week, the average amount being about  $12\frac{1}{2}$  million gallons per week. This, allowing for houses supplied in outlying districts, gives about  $31\frac{1}{2}$  gallons per head per day for all purposes, and more could have been pumped in if necessary.

Former reports compared with this will show that the quantity and quality of the water remain practically the same year by year. It is very satisfactory to have a source so comparatively independent of variations in the amount of rainfall.

I submit the report of a typical analysis of Eastbourne water, the samples being taken in the late autumn and reported on by Professor Frankland. Mr. Wynter Blyth's (Borough Analyst) reports give similar results.

It will be noticed that reports on both series of mains, high and low service, and on the well itself are included.

There are no nitrites in the water and no trace of any poisonous metal.

Wild statements are made at times as to the suitability of any particular water for drinking purposes, and the fact that a water comes from chalk strata is sometimes held to be an objection to it, even when it is but moderately hard, as in Eastbourne. It will be found as a rule that these statements emanate from vendors of patent waters necessarily interfered with to some extent in bottling, etc.

It is interesting to note in this respect that in place of the ordinary water one may find persons using unwittingly ærated and other waters of much greater hardness, and in one case I found a so-called "distilled water" to be about as hard as the Eastbourne water and to be organically impure.

CHEMICAL LABORATORIES,  
THE UNIVERSITY,  
BIRMINGHAM,

*December 1st, 1909.*

DEAR SIR,

Herewith I enclose a tabular statement of the results obtained in the analysis of the several samples of water sent to me from Eastbourne on the 15th ult.

The samples from both the High and Low Service Mains were almost perfectly clear; they were palatable, of an extremely high degree of organic purity, and of moderate hardness. These results show that the water supplied was of most excellent quality for drinking and for domestic purposes generally.

The sample from Friston exhibited the same proportions of nitrates and chlorides as were present in the water from the town mains.

I am, faithfully yours,

(Sgd.) PERCY F. FRANKLAND.

## RESULTS OF ANALYSIS EXPRESSED IN PARTS PER 100,000.

Description.	Total Solid Matters.	Organic Carbon.	Organic Nitrogen.	Ammonia.	Nitrogen as Nitrates and Nitrites.	Total com- bined Nitrogen.	Chlorine.	Hardness.		
								Tem- porary.	Per- manent.	Total.
High Service Main, Nov. 15, 1909 ...	30'24	'030	'008	0	'341	'349	3'40	16'2	3'5	19'7
Low Service Main, Nov. 15, 1909 ...	29'70	'030	'009	0	'336	'345	3'40	15'8	3'6	19'4
Friston (direct) ...	—	—	—	—	'345	—	3'40	—	—	—

(Signed) PERCY F. FRANKLAND, Ph. D., M.Sc., LL.D., F.R.S.

## **Sewerage and Drainage.**

All matters pertaining to sewers are in the Department of the Borough Engineer. The sewerage of Eastbourne, owing to the rapid growth of the Borough, requires continual attention, and the Borough Engineer has commenced a part of his new and comprehensive scheme. The part of the Borough chiefly concerned with extended sewerage is the north-eastern portion near Seaside and Whitley Road, and the work is in hand. The sewerage conditions in the other districts are apparently satisfactory. Surface road level ventilation of sewers through grids has been for some time now quite abandoned, with great advantage as regards nuisances. High upcast shafts are provided, so that there is no air pressure in the sewers. The system of intercepting traps between the house drains and the sewers is practically universal in Eastbourne, as is, of course, the water carriage system. The few exceptions are in buildings connected with agriculture in the outlying districts.

The whole of the sewage, except that from the Infectious Diseases Hospital, and some surface water, passes into the sea untreated at Langney Point, some distance to the east of the Borough in Pevensey Bay. Owing to the levels of a portion of the Borough, the fall is only natural at low tide ; at high tide some of the sewage has to be lifted by the aid of Shone's Pneumatic Ejectors.

In two parts of the town the sewage has to be raised to the level of the main sewers by pneumatic ejectors—viz., in Compton Street and in Bourne Street. The system works very well.

There are one or two outfalls on the sea front for storm water.

Infectious excrementitious matter at the Infectious Diseases Hospital is destroyed by cremation, and as there are but very few cases except those in the Hospital, fouling

of the shore in the neighbourhood of the outfall, if it occurred, would not easily convey specific infectious illnesses, if at all.

House drainage work during the year is detailed in the later part of this report dealing with the work of the Sanitary Inspectors. The house drainage receives constant attention, and the conditions in this respect in Eastbourne are highly satisfactory.

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### **House Refuse.**

House and garden refuse is collected over the whole of the Borough by the Corporation, and is then burnt at the Destructor.

This is the only way in which to deal satisfactorily from a health point of view with our refuse. There is no difficulty as regards house refuse, but during 1908 questions arose concerning two varieties of offensive refuse. The first—fish offal—is particularly offensive when stale, and is removed daily from fishmongers' shops at a charge previously of about 50% of the cost of removal. This charge was somewhat increased, but there was no decrease in the efficiency of the removal. In the second case, viz., that of garden refuse, fortunately the old arrangements of not charging still obtain, and so we are saved the nuisances referred to in detail in my last report.

In the interest of health and convenience the continuance of the present system is very important.

Gardens in Eastbourne are so universal and of such general advantage to the town as a whole, that the small saving that would be effected in the cost of collection and destruction would not be worth the nuisance, danger, and irritation. The owners of gardens are rated accordingly, and so they do at present pay their portion.

Certain improvements are in hand at the Destructor, which will enable a more suitable type of cart to be used.

The year 1906 was the first complete year in which the whole of the district was scavenged by the Corporation, with a great improvement in efficiency. Until 1906 a Contractor had the removal of refuse over a part of the East of the Borough. Collection of Refuse takes place once weekly during nine months of the year, and twice weekly in July, August, and September, from all houses whether large or small; this has gone on now since and including the year 1899.

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### **Population.**

Although it is nearly ten years since the last general census and within one of the next, local events have made it necessary to obtain now as accurately as possible an idea as to the number of the population of Eastbourne. A local census was taken on October 8th, 1907, which shewed the population to be 50,696 on that day and 653 more than that on the previous Sunday. These numbers agreed with what had been estimated as to the probable population, and this local census was taken at a very fair time of the year--a long way from Eastbourne's most crowded time and yet not at its worst.

Owing to certain interests involved, the second census was ordered to be taken on January 24th, 1909. Many of the schools at that date had not yet re-opened. At this census the number of the population was found to be 49,286, but no opportunity has been given of studying the accuracy of these figures. For various reasons one is inclined to accept the previous local census as giving a fairer indication of the average population, especially as for most of the year the population is admittedly so very much greater.

The usual method of calculating a population, namely, by assuming that it increases in proportion as it did in previous inter-censal years, gives divers results as far as the population of Eastbourne is concerned, for if the

population had continued to increase as it did during the years 1881-1891, the population would now be about 60,000, but if it only increased as it did during the years 1891-1901, the population would have been 51,744 in the middle of 1909.

It is probable, as shown by the 1907 census, that something intermediate has been the case in Eastbourne in the last few years, and in this report, for calculations as to death-rates, etc., the population has been taken as being 52,000. If these figures are obtained in such a month as October, it is obvious that the average population is greater than this during the increases at Christmas, Easter, and, above all, during the summer months.

A total of approximately 1630 certificates have been issued by the Building Surveyor for occupation of new houses since the census of 1901; the census of 1907 shewed the average number of persons per house to be 5.88. Allowing for the usual percentage of empty houses this apparently shews an increase of 9,114 persons since the 1901 census, or a total population at the end of 1909 of 52,458 persons.

The distribution of the population according to Districts is shown in the following table. In the third column the estimate as to the additional population since the census is obtained partly by calculations from the number of houses built and occupied in each Ward since the census year.

New Wards.	Old Wards.	Population in 1891 (Census).	Population in 1901 (Census).	Approximate Population in 1909 (Estimate).
Roselands Cavendish Redoubt	} East	... 12113	... 16836	... 20960
Central Devonshire				
Meads	... West	... 5736*	... 6101	... 6820
St. Mary's Upperton	} St. Mary's...	6619*	... 10752	... 14180
Totals		... 34969	43344	52000

\* Some of the St. Mary's Ward population was at this census included with the West.

### SEX CONSTITUTION OF THE POPULATION.

The last official census showed that the percentage of males is now nearly stationary, and not decreasing at the rapid rate the previous census showed :—

Year.	Males, Total.	Per- centage.	Females, Total.	Per- centage.	Total.	Excess of Females.
1881 (census)	10,060	45·7	11,954	54·3	22,014	1,894
1891 (census)	14,665	41·9	20,304	58·1	34,969	5,639
1901 (census)	18,097	41·8	25,247	58·2	43,344	7,150
1909 (estimate)	21,684	41·7	30,316	58·3	52,000	8,544

Calculated to the middle of 1909 there are probably 8,632 more females than males in Eastbourne, due partly to there being fewer occupations and means of obtaining livelihood for men in Eastbourne in proportion to women.

In Eastbourne males preponderate at ages 1 to 14, and at ages below 1 and above 14 females preponderate. After the age of 50 there is not much difference, the greatest excess being at the ages 20 to 30, when the females are nearly twice as numerous as the males.

## AGE CONSTITUTION OF EASTBOURNE POPULATION.

The following table gives the 1901 (census) and 1909 (middle, estimated) age groups of the population according to sexes :—

Age Groups.	Census, 1901.			Estimate, 1909.		
	Males.	Females	Total.	Males.	Females	Total.
0—1 ... ..	392	406	798	470	488	958
1—5 ... ..	1537	1502	3039	1844	1807	3651
Total under 5 ... ..	1929	1908	3837	2314	2295	4609
5—15 ... ..	4383	4100	8483	5260	4915	10175
15—25 ... ..	3533	6114	9647	4225	7348	11573
25—65 .. ...	7434	11906	19340	8905	14295	23200
65 and upwards ...	818	1219	2037	980	1463	2443
Totals ... ..	18097	25247	43344	21684	30316	52000

Of late years there has been a gradual change in the age constitution of the population of Eastbourne, in that there are proportionately more persons of ages 25 to 65 and less from 1 to 15, amounting in ten years to about three per cent.

The percentage composition of the population of Eastbourne at different groups of age is given in the following table :—

Age Groups.	Census, 1891.	Census, 1901.		
	Total.	Total.	Males.	Females.
Under 5 years of age ... ..	10'02	8'85	10'66	7'56
5—15 ... ..	21'19	19'57	24'22	16'24
15—25 ... ..	22'90	22'26	19'52	24'21
25—65 ... ..	41'65	44'62	41'08	47'16
65 and upwards ... ..	4'24	4'70	4'52	4'83

At the census of 1901 it was found that of 10,709 occupied males over ten, 2,441 were engaged in the building and allied trades. Of 8,843 occupied females, 3,771 were in domestic service. These are the two staple occupations for males and females respectively in Eastbourne.

### HOUSING OF THE POPULATION.

The following table shows the number of dwelling-houses in Eastbourne and in each Ward at the census of 1891 and 1901; also the number of persons per house and the number of dwelling-houses recently certified:—

Ward.	Houses inhabited at Census, 1901.		Persons per house. Census, 1901.		Houses certified in 1909.		Houses certified from Census to end of 1909.
East ...	2,970	...	5·6	...	26	...	795
Central ...	1,555	...	6·2	...	2	...	67
West ...	643	...	9·4	...	9	...	126
St. Mary's	1,920	...	5·6	...	63	...	641
	<hr/> 7,088 <hr/>		<hr/> 6·1 <hr/>		<hr/> 100 <hr/>		<hr/> 1,629 <hr/>

In 1909 certificates were issued for 100 new houses, as against 105 in 1908, 127 in 1907, and 163 in 1906

The persons per house have been as follows:—

1891 census—6·7.

1901 census—6·1.

1907 census—5·88.

This points to a decrease of over-crowding, but also to the fact that a smaller class of house has been built, on the whole, of late years.

Between the two census years of 1891 and 1901 there was a reduction in the number of persons per house in each district except in the West or Meads Ward.

Over-crowding is of very small extent in Eastbourne, though the rents are such that many householders find it necessary to have lodgers.

The population density in 1908 was approximately 8·8 persons per acre for the whole Borough ; for the town, *i.e.*, the part built over, it was approximately 40 to 45 persons per acre.

This latter density has to be the one taken chiefly into account, and it is a small one and an important factor in the health of the community. That the Borough is surrounded by sea and open lands and intersected by parks and large gardens is of inestimable advantage to its healthiness. The older building areas on the estates were splendidly laid out in this respect.

The building sites in St. Mary's, where much of the building is going on, are very healthy, being on good chalk and at a good elevation. The same remark applies to the West District, where, however, in 1909 there was very little building. The sites in parts of the East are on marshy ground and at too low a level, and the Bye-law, keeping up the level of site of new houses there, is very necessary. In the Central District, building of new houses is practically at an end, as there are no more sites.



## MARRIAGES.

The number of marriages recorded in the Borough during 1909 was 345, equal to a rate of 13·7 per 1,000 persons living.

The following table gives rates in previous years in Eastbourne, and compares them with England and Wales :—

Year.	No. of Marriages.	Rate per 1,000 living.	Rate for England and Wales.
1899    ...    ...	298	14·28	16·5
1900    ...    ...	255	12·00	16·0
1901    ...    ...	341	15·67	15·9
1902    ...    ...	325	14·68	15·9
1903    ...    ...	312	13·87	15·6
1904    ...    ...	271	11·84	15·2
1905    ...    ...	273	11·87	15·3
1906    ...    ...	327	13·34	15·6
1907    ...    ...	348	13·78	15·8
1908    ...    ...	350	13·59	14·9
10 years' average.	310	13·28	15·67
1909    ...    ...	345	13·27	—

The marriage rate is thus at about the ten years' average.

## BIRTHS.

The births registered during 1909 numbered 876, and comprised those of 437 males and 439 females.

The births occurred in the succeeding quarters of the year as follows :—189, 250, 228, 209.

The following table shows the steady diminution in the Eastbourne birth-rate ; the birth-rate for England and Wales is also diminishing year by year :—

Years.	No. of Births.	Eastbourne, Birth-rate per 1,000 living.	England & Wales, Birth-rate per 1,000 living.
1899 ... ..	936	22'42	29'1
1900 ... ..	892	20'99	28'7
1901 ... ..	907	20'85	28'5
1902 ... ..	907	20'49	28'5
1903 ... ..	900	20'00	28'4
1904 ... ..	963	21'05	27'9
1905 ... ..	853	18'34	27'2
1906 ... ..	892	18'24	27'0
1907 ... ..	871	17'25	26'3
1908 ... ..	951	18'46	26'5
10 years' average.	897	19'81	27'8
1909 ... ..	875	16'84	25'6

In 1909 there was a further drop in the birth-rate.

The diminution in the birth-rate goes on in Eastbourne as elsewhere. The cause is well known. Unfortunately, the diminution in rate is due to cessation of child birth among those able to properly feed and bring up their children.

The rate for England and Wales in 1909 was 2·2 per 1,000 below the average for the preceding ten years.

Of the total number of births registered 46 were illegitimate, or at the rate of 52 per 1,000 births. This is well in advance of the ten years' average rate.

The death-rate of illegitimate children for the year was one in 5·7 born.

The average proportion of illegitimate to legitimate births in recent years throughout England and Wales up to 1908 was 40 to each 1,000 births, or 12 less than in Eastbourne.

The births and birth-rates per 1,000 per annum for the various Wards in 1909 were as follows:—

		Births.		Rate per 1,000.
East Ward ...	...	512	...	24·4
Central ...	...	105	...	10·4
West ...	...	38	...	5·5
St. Mary's ...	...	221	...	15·6
		<hr/>		<hr/>
The Borough ...		876	...	16·84
		<hr/>		<hr/>

In the East Ward there were 264 more births than deaths.

„ Central	„	2 less	„	„
„ St. Mary's	„	97 more	„	„
„ West	„	13 less	„	„

The return as to Vaccination on the next page has been kindly supplied by Mr. Hodges, the Vaccination Officer for Eastbourne and Seaford.

# VACCINATION RETURN FOR EASTBOURNE DISTRICT, including Local Government Returns due on or before February, 1910.

E. J. HODGES, *Vaccination Officer.*

Year.	Births.	Successful Certificates Registered.	Certificates of Insuscep- tibility Registered.	Had Small Pox.	Certificates of Exemption Registered.	Deaths under one year old.	Postponed by Medical Certificate.	Removed out of town and gone, no address.	Cases of Prosecu- tion under Sec. 31.	Unaccounted for.	Total number of Certificates of Success- ful Primary Vaccinations at all ages received during each of last 12 years.
* <sub>1</sub> 1895	* <sub>2</sub> 978	* <sub>3</sub> 221	* <sub>4</sub> —	* <sub>5</sub> —	* <sub>6</sub> 102	* <sub>7</sub> 108	* <sub>8</sub> —	* <sub>9</sub> & <sub>10</sub> 52	—	* <sub>11</sub> 495	* <sub>12</sub> —
1896	1017	228	1	—	82	108	—	21	—	577	—
1897	985	194	—	—	102	103	1	42	—	543	—
1898	1024	209	—	—	122	137	1	86	8	461	116
1899	1050	314	3	—	111	115	2	100	15	390	228
1900	999	313	—	—	249	93	40	122	8	174	351
1901	999	313	—	—	351	101	28	108	20	78	491
1902	997	303	2	—	326	81	56	82	5	152	712
1903	1000	297	—	—	343	71	33	106	—	150	355
1904	1051	283	2	—	372	75	44	98	—	177	306
1905	957	310	1	—	377	77	38	84	—	70	392
1906	995	281	—	—	359	73	31	67	—	184	280
1907	985	234	1	—	377	76	11	98	—	188	289
1908	1033	217	1	—	464	66	24	94	—	167	288
Jan. to June 1909	483	79	1	—	228	33	8	44	—	90	214

The number of certificates of conscientious objection actually received by Vaccination Officer irrespective of the dates of birth of the children to which they relate, during the year 1909 was 570.

The numbers marked thus (\*) refer to columns in official Returns to Local Government Board.

## INFECTIOUS DISEASES.

To be ready to deal effectively with Infectious Illness, the Council has adopted all the adoptive Acts on the subject as early as they have been available.

The Infectious Diseases Notification Act, 1889; the Infectious Diseases Prevention Act, 1890; the Public Health Act Amendment Act, 1890; and the useful clauses of the Public Health Act, 1907; were all adopted as soon as possible after they were passed. There are also certain clauses in the Eastbourne Improvement Acts that concern Infectious Illness.

### NOTIFICATION.

From the 1st of January, 1909, Pulmonary Tuberculosis or Consumption was partially added to the list of diseases which have to be notified to the Medical Officer of Health.

The Medical Officer of the Workhouse and the District Poor Law Medical Officers have to notify cases occurring in their Poor Law practice, and the Master of the Workhouse and the Relieving Officers have to notify changes of address of Consumptive patients receiving poor law relief.

By this means we obtain information which enables us to give advice, disinfection, etc., where required.

Voluntary Notification of ordinary cases of Pulmonary and Laryngeal Tuberculosis or Consumption has been in operation in Eastbourne for seven-and-a-half years.

The other diseases notified are those now compulsorily notified in accordance with the former Voluntary Act of 1889.

In 1902 Varicella was added for a time only as a precaution against the spread of Small Pox through mild cases akin to Chicken Pox in appearance.

Measles, Whooping Cough and Diarrhœa, the three most fatal diseases of early childhood, are not notifiable, and while no provision is made for isolation of these cases, notification is practically useless. If isolation were provided much could be done for the sufferers, but the infection, especially of the first two, is at its height so early that these diseases spread before the first cases are noticed, and so far as the general public is concerned, notification would be too late.

In addition to the legal notifications much information is obtained from the School Attendance Officers and the Head Teachers of Schools, especially as to outbreaks of diseases, cases of which have not legally to be notified.

#### NOTIFICATIONS.

During 1909 there were 509 cases of infectious illness notified, exclusive of Tuberculosis. This represents a sickness rate as regards the diseases scheduled of 9·7 per 1,000 of the population. In the previous year the notifications were 442 and the rate 8·5. The increase was in both Scarlet Fever and Diphtheria, bringing the total numbers well above the average.

The highest sickness-rate was in 1890, when it was 16·53 per 1,000 ; the lowest in 1903, when it was 2·62 per 1,000.

The subjoined table shows the rates for the past ten years and the average rate :—

Year.	Total number of cases notified.	Sickness-rate per 1,000 of population.
1899... ..	157	3·76
1900 .. ..	148	3·48
1901... ..	206	4·74
1902... ..	197	4·45
1903... ..	118	2·62
1904... ..	137	2·99
1905... ..	142	3·05
1906... ..	208	4·24
1907... ..	218	4·31
1908... ..	442	8·38
Average for 10 years.	197·3	4·23
1909... ..	509	9·78

A complete table, giving details of the various diseases notified from January, 1906, to December, 1909, divided and sub-divided according to years and quarters, is given in the Appendix.

A table in the Appendix shows how the notifications were received week by week. The greatest number in any one week was 18 in the week ending November 17th.

The cases occurred in the succeeding quarters as follows :—

1st Quarter	...	...	...	140
2nd	„	...	...	126
3rd	„	...	...	101
4th	„	...	...	142

As usual, there was a large proportion in the last quarter, especially as regards Diphtheria, the two middle quarters are always best as regards infectious illness.

The distribution of the notified cases according to Districts, and the sickness-rate per 1,000 for each District for 1909, are shown in the following table :—

Disease.	Districts.				The Borough.
	East.	Central.	West.	St. Mary's.	
Scarlet Fever ... ..	103	23	12	84	222
Diphtheria ... ..	124	40	4	95	263
Enteric Fever... ..	3	2	1	3	9
Erysipelas ... ..	6	1	—	8	15
Total ... ..	236	66	17	190	509
Sickness-rate ... ..	11·7	6·5	2·4	13·4	9·7

The East District was the principal sufferer absolutely but not relatively. In years gone by and up to 1902, St. Mary's District had always most infectious illness. Since

the extensive building over the Marsh District the preponderance of infectious illness had gone to the Eastern District until 1909, when it returned to St. Mary's. Two outbreaks of Diphtheria during the year due to school influence helped to cause this change.

The sickness-rate per 1,000 for each District for the past 10 years is shewn in the subjoined table :—

Sickness-rate per 1,000.	East.	Central.	West.	St. Mary's.
1909 ... ..	11·7	6·5	2·4	13·4
1908 ... ..	14·1	4·1	2·6	6·3
1907 ... ..	5·3	2·6	3·4	4·5
1906 ... ..	5·8	4·3	0·8	3·5
1905 ... ..	4·8	2·2	1·1	2·0
1904 ... ..	4·3	1·2	2·2	2·8
1903 ... ..	3·0	2·1	2·6	2·4
1902 .. ...	4·3	3·8	4·5	5·2
1901 ... ..	4·1	2·3	2·2	10·6
1900 ... ..	2·7	2·5	2·3	4·5
1899 ... ..	3·3	3·4	1·7	4·3

#### NOTIFICATIONS—AGE INCIDENCE.

The subjoined table shows that, as usual, the age group 5-15 suffers most in these diseases :—

Disease.	Total	0-1	1-5	5-15	15-25	25-65	65 and upwards.
Scarlet Fever ...	222	—	40	137	30	15	—
Diphtheria ...	263	—	49	172	21	20	1
Enteric Fever ...	9	—	—	1	3	5	—
Erysipelas ...	15	1	—	—	—	11	3
Puerperal Fever.	—	—	—	—	—	—	—
Totals... ..	509	1	88	310	54	51	4

The later in life the less the chance of a child's getting the commoner diseases, viz., Scarlet Fever and Diphtheria, and the better the chance of getting over it.

#### NOTIFICATIONS—SEX INCIDENCE.

Disease.	Males.	Females.	Totals.
Scarlet Fever ... ..	97	125	222
Diphtheria ... ..	121	142	263
Enteric Fever ... ..	6	3	9
Erysipelas ... ..	6	9	15
Puerperal Fever ... ..	—	—	—
Totals ... ..	230	279	509

It is usual for females to be in excess except in cases of Enteric Fever.

Some of the cases were imported or due to imported cases, as shewn later on, under each disease dealt with. This is usual in health resorts.

#### HOUSE DISTRIBUTION.

The 263 Diphtheria cases occurred in 211 houses, thus :

In 183 houses in each house 1 case	... 183
In 18 " " 2 cases	... 36
In 5 " " 3 " "	... 15
In 3 " " 4 " "	... 12
In 1 " " 5 " "	... 5
In 1 " " 12 " "	... 12
—	—
211	263
—	—

The 222 Scarlet Fever cases occurred in 175 houses, thus :—

In 146 houses in each house	1 case	...	146
In 19 „ „	2 cases	...	38
In 6 „ „	3 „	...	18
In 2 „ „	4 „	...	8
In 1 „ „	5 „	...	5
In 1 „ „	7 „	...	7
<hr/>			<hr/>
175			222
<hr/>			<hr/>

In seven houses both Scarlet Fever and Diphtheria occurred ; in one instance the same child had Scarlet Fever twice and in another, Scarlet Fever and Diphtheria at separate times.

#### SMALL POX.

No Small Pox has occurred in Eastbourne since 1902, when there were two cases.

#### SCARLET FEVER.

Two hundred and twenty-two cases of Scarlet Fever were notified during 1909. All but two were isolated in the Borough Hospitals.

There were special reasons for the non-isolation in Hospital of these two which were visited constantly by the Sanitary Inspector until final disinfection had taken place.

Nearly half the cases were in the Eastern District.

There were two fatal cases—the deaths occurred some-time after discharge from Hospital. In each case an operation was performed because of ear disease which had followed as a sequel to the Scarlet Fever.

The death-rate from Scarlet Fever in Eastbourne therefore for the year was 0·038 as against 0·09 for England and Wales and the fatality less than one per cent.

These were the first deaths from Scarlet Fever in Eastbourne for some years.

The cases were spread out throughout the months almost equally: there were most cases (25) in May and contrary to usual, least in December (9).

The number of cases notified was the largest for some years. There was no special epidemic, nor trace of connection of cases with any particular milk supply or any particular school.

During May when most cases occurred, viz., 25, eleven of the patients were not attending school and were either above or below school age, two were attending two private schools, and the remaining twelve attended ten different elementary schools. Similar statistics apply to cases occurring in the other months of the year.

Various cases were imported or due to importations, but it was not possible to trace many of the cases. Importations and mild unnoticed cases are responsible for keeping up the supply of Scarlet Fever.

One patient was found in the train on the way here from London to have Scarlet Fever and was removed at once to the Sanatorium.

“Return Cases.” — These troublesome cases again occurred to a slight extent. In the four unequivocal cases the intervals after discharge of the first case were respectively 4 days, 8 days, 7 days and 22 days. Assuming that these were true return cases the rate was 1.7% of the total discharges. There were other instances where more than one patient came from the same house, but which were not “return cases.”

Circumstances show that some of the so-called return cases are only apparently return cases, but there is no doubt that there are “carrier” cases of Scarlet Fever where there is almost unlimited persistence of infection as well as “carrier” cases of infection in other illnesses.

In one house cases were notified at intervals after the first case as follows, 18 days, 11 days, same day, 27 days, 3 days, same day irrespective of discharges of patients.

In 1908 I recorded instances such as a secondary case having been notified two days *before* the return home of the cured patient. Had it been two or more days later this would have been called a "return" case. Coincidences such as this occurred again in 1909 and may account for some of the so-called return cases.

In previous reports I have gone fully into the advantages of having a Scarlet Fever Hospital, and the recovery of every patient in 1909 is an important and satisfactory testimonial to its use. It is exceedingly rare for a death from Scarlet Fever to occur at the Hospital. Unfortunately as I have mentioned two children died after operation for Scarlet Fever Sequelæ after leaving the Hospital.

#### DIPHTHERIA.

The unsatisfactory feature of the year 1909 as regards health in Eastbourne was the continued large number of the cases of Diphtheria. At the time of writing this report fortunately the number of cases is much diminishing.

The outbreak, which is apparently nearing its end, has been neither as large nor as fatal absolutely or relatively as in 1890, when the population was many thousands less, so that the improved methods of dealing with the disease have had some result.

The numbers have been as follows in late years:—

1890	...	495	1900	...	50
1891	...	184	1901	...	55
1892	...	59	1902	...	51
1893	...	58	1903	...	44
1894	...	40	1904	...	38
1895	...	36	1905	...	31
1896	...	42	1906	...	19
1897	...	177	1907	...	54
1898	...	42	1908	...	258
1899	...	47	1909	...	263

In the old days about 1890 the disease was very prevalent, and the deaths in that year were 59. In spite of the increase of population from under 35,000 to 52,000, not only were the numbers of cases less in 1909, but the deaths numbered only 11 as against 59 in 1890. In 1908 the deaths were 14 in number.

London and other places, particularly in the South, have been somewhat similarly suffering.

The origin of the outbreak which started early in 1908 appears to have been in the district where Whitley Road joins Firle Road. Nearly the whole of the inmates of a house here became attacked after the occurrence of an unnotified case that proved fatal. For some time succeeding cases could be traced, or partially traced, directly or indirectly to connection with this house or its inmates, and then cases became more general in the locality and could not often be traced. Sporadic cases throughout the Borough followed, and in 1909 there were proportionately as many cases in St. Mary's District as in the East.

The relaying of the sewer in Whitley Road will, I believe, result in a more healthy state of things in that district. Although Diphtheria spreads from person to person by means of a specific bacillus, yet the predisposing conditions are very important, and the marsh district is undoubtedly fertile in starting cases of Diphtheria.

Of the total number of cases about 106 occurred in the region between the railway and the northern side of Seaside. There was a total of 124 in the Eastern District, 40 in the Central, 4 in the West, and 95 in St. Mary's.

Two school epidemics in St. Mary's district necessitated special action in connection with a large private school, and the temporary closure in December of St. Mary's Infant School a few days before the Christmas holiday.

Importations always account for a number of our cases. Twelve cases in a school were traced to importation of a case in a pupil from London.

All the notified cases but five were removed to Hospital, viz., two mild cases in large private houses, one doubtful case, one removed to the Princess Alice Memorial Hospital for Tracheotomy, and one where it would have caused injury to insist on removal.

The type of case was fairly bad, but thanks to the use of Antitoxin the fatality was again very low for Diphtheria, being but 11 out of 262, or 4·1%.

Many of the cases were traced, and personal connection, especially in schools, was a factor of importance, often from missed mild cases.

In five cases Tracheotomy was necessary, and four of the patients recovered. There was one fatal case at another hospital.

No cases were associated with milk supply.

The months in which most cases occurred were in order: November (34), January, October, February, and least in March (11).

In my last report I dealt with "return cases" of Diphtheria. Until 1907 there had been but a doubtful one in thirteen years.

There were a few instances of what appeared to be return cases in 1908, but fortunately one was able to shew by the returns that what are supposed to be "return" cases, especially in Diphtheria, are often only coincidences, for there were more instances of second cases from the same house being sent to Hospital just *immediately before* the return home of the first case, than there were of second cases *soon after* the return of a patient from the Hospital.

The experience of 1909 has been similar. There were three instances (or 1·1% of the discharged patients) of what

might have been "return cases," *i.e.*, patients from the same house came back in six, eight, and ten days respectively after the first case left hospital.

On the other hand there were four instances of patients being notified and coming into hospital immediately *before* the discharge of a previous case in the same house.

#### ENTERIC (TYPHOID) FEVER.

There were nine cases of Enteric Fever during 1909. The numbers in the five previous years were eight, five, eight, one, and seven respectively. Two of the nine were importations and two were undoubted oyster cases, the origin of the five others was not so clearly traced. Three cases were fatal.

One case only was not removed to Hospital, being so far advanced before notification that it was soon fatal.

#### PUERPERAL FEVER.

There were no cases of this disease.

#### ERYSIPELAS.

Fifteen cases were notified as compared with a ten years' average of about 25.

#### THE NON-NOTIFIABLE INFECTIOUS DISEASES.

This group includes Measles, Diarrhœa, etc., and they are far more dangerous to life than most of the notifiable diseases.

As they are not notified they are dealt with in this Report under the heading of Deaths.

Information is obtained sometimes from Head Teachers, School Attendance Officers, and others. If the minimum school age were raised I have no doubt there would be less Measles and Whooping Cough.

Tuberculosis is partly compulsorily and partly voluntarily notifiable, and is dealt with later on.

Measles was very prevalent throughout the year.

#### PROCEDURE ON RECEIPT OF NOTIFICATION.

This has been detailed previously, but a short summary is as follows :—

The Sanitary Inspector visits, makes enquiries with a view to prevention of farther cases, and obtains written particulars for the Medical Officer of Health and for future use.

If, as is almost always the case, the patient is removed to the Hospital, disinfection is done at once. What can be removed to the steam disinfector is removed in bags, and the room, furniture, etc., disinfected on the spot.

If the patient is kept at home—and this is a rare course in Eastbourne—the disinfection is done at the close of the case.

Notification is sent by the Department to the Heads of Schools concerned, and to the School Attendance Officers, as to the keeping of children from school.

Examination into the sanitary condition of the house is made.

The Public Librarian is informed, and private Librarians also if necessary.

Removal to the Sanatorium is urged in every fit case, with again the same measure of success as in any other year, nearly 99 per cent. of the patients being so isolated, even allowing for doubtful cases.

#### MEANS OF ISOLATION IN THE BOROUGH.

The means of isolation continue to be satisfactory and sufficient. The Isolation Hospitals include :—

1. A General Infectious Diseases Hospital—viz., the Sanatorium—for Scarlet Fever, Diphtheria, and Enteric Fever.

This is situated about 150 ft. above the level of the sea on the extreme border of the town ; it is the last house out towards the Downs at the back of the town. The accommodation here consists of the following :—

For Scarlet Fever—33 beds in three pavilions.

For Diphtheria and Special Isolation—25 beds in three pavilions.

For Enteric Fever—4 beds in one pavilion.

For emergencies there are 17 beds in an iron temporary building.

Two pavilions of 12 and 4 beds respectively are reserved for use of the schools under the various members of the Eastbourne Schoolmasters' Association, and two pavilions of 7 beds each are reserved for similar occupancy by children of girls' schools. These reserved pavilions are in all respects, except reservation for use, entirely supervised by the Medical Officer of Health and Matron, under the direction of the Sanitary Authority.

2. Acacia Villa.—A cottage isolated and in its own grounds, used for these two purposes :—

(a) For the lodging of persons whose houses are being disinfected.

(b) For the temporary lodgment of persons who have been exposed to infection and are not themselves ill.

This was used by 34 persons during 1909, 30 during 1908, 27 during 1907, 21 during 1906, 13 during 1905, 12 during 1904, 7 during 1903, and 32 during 1902.

3. Langney Hospital.—For Small-Pox.

This is situated just outside the eastern border of the Borough, on the Crumbles, half-a-mile from the nearest house and a mile from the next, and over a

mile distant from either of the two other Institutions of Isolation. It has not been used since 1902.

The use of this hospital for Consumptives is under consideration. Its very complete isolation, though advantageous in cases of Small-Pox, would make it an expensive Consumption Sanatorium.

A description of these three Institutions, their cost, and their working during 1909 has been given by me in the Medical Officer's Annual Report on the same.

#### REMOVALS TO THE ISOLATION HOSPITALS.

Of the patients suffering from Scarlet Fever, Diphtheria, and Enteric Fever, which are the three diseases received at the Sanatorium, 98·4 per cent. were removed thither. Four hundred and ninety-four of these cases were notified and 486 were removed to the Sanatorium leaving 8 cases only not removed to act as possible centres of infection.

	Cases.	Removed to Hospital.	Not Removed.	Percentage Removed.
Scarlet Fever ...	222	220	2	99·1
Diphtheria ...	263	258	5	98·1
Enteric Fever ...	9	8	1	88·8
	<u>494</u>	<u>486</u>	<u>8</u>	<u>98·4</u>

The figures of the percentages of patients notified suffering from Scarlet Fever, Diphtheria, and Typhoid Fever, who were removed to the Sanatorium, for the past 10 years are subjoined :—

1900, 92·1 per cent. of the cases.

1901, 91·4	„	„
1902, 88·7	„	„
1903, 92·7	„	„
1904, 92·7	„	„
1905, 94·3	„	„
1906, 95·4	„	„
1907, 98·9	„	„
1908, 98·8	„	„
1909, 98·4	„	„

It is very satisfactory to record this continuing popularity of the Sanatorium, and that the fatality of the cases sent there has been so comparatively small.

The keeping up of such a well-equipped Hospital is most necessary in a health resort such as Eastbourne. Various of the patients have been visitors and have much appreciated having the use of such an Institution.

Details as to administration, etc., are published in my Annual Report on the Infectious Diseases Hospital, Acacia Villa, and Langney Hospital, the nett cost of which to the Borough during 1909 (October, 1908, to October, 1909), was £2,741 19s. 5d., excluding payment of capital and interest on capital expended.

#### DISINFECTION.

The methods of disinfection employed are the same as in previous years.

For clothing, bedding, etc., Superheated Steam (Temp. 260° F.) in a Washington Lyon Disinfecting Machine is used.

For articles such as Furs, Boots, etc., that will not stand superheated steam, washing with Formalin Solution or Perchloride of Mercury Solution is employed.

For rooms and houses fumigation with Formalin Gas by means of various lamps is the general method. Sometimes, instead of fumigation, a sprayer is used for formalin or other solution, such as Izal, McDougall's or Lawes Fluids.

Re-papering, re-painting, lime-washing, and much soap and water cleansing after the fumigation by the disinfectant gas are the methods chiefly relied on.

After "Consumption" the usual form of disinfection carried out or suggested has been wet dusting by dusters wrung out of strong disinfectant, especially Formalin, Izal, etc., but general disinfection is done also. Disinfection after "Cancer" is also done, on request being made, in the hope that it may be of use in preventing spread.

The disinfection of infected houses or rooms is always done by the Sanitary Inspectors or one particular man in the Sanitary Department under their immediate instructions.

The Schools have been disinfected by spraying from time to time.

At the Steam Disinfector, which is situated in the Sanatorium grounds, the following work has been done :—

Disinfecting—

Sets of Clothes (including various lots)	538
Sets of Bedding ... ..	587

This includes the Borough work as well as that of the Sanatorium.

A second small disinfector for verminous clothing and minor infectious disease is shortly to be added if a suitable situation can be found for it.



## DEATHS.

The total number of deaths registered in Eastbourne during 1909 was 552. Of these, 251 were of males and 301 of females.

The total death-rate for the Borough for 1909 was **10·61 per 1,000**, and this is inclusive of every death that occurred in the Borough without any so-called corrections. Excluding deaths of non-residents (32 in number), the rate was 10·0 per 1,000 per annum.

The subjoined table compares these rates with those for preceding years and with those of England and Wales generally :—

Years.	Number of Deaths.	Total Death-rate (no exclusion).	Death-rate excluding deaths of Visitors.	Death-rate of England and Wales.
1899	566	13·56	10·37	18·2
1900	501	11·78	10·72	18·2
1901	498	11·45	10·55	16·9
1902	541	12·23	11·02	16·2
1903	495	11·00	9·62	15·4
1904	480	10·49	9·2	16·2
1905	522	11·22	9·1	15·2
1906	524	10·69	9·44	15·4
1907	555	10·99	9·9	15·0
1908	510	9·90	8·8	14·7
10 years' average	518	11·33	9·87	15·9
1909	552	10·61	10·0	14·5

The rate for 1909 for England and Wales is again remarkably low, being 1·4 per 1,000 below the 10 years' average. In spite of this low rate, the rate for Eastbourne for 1909 was 3·9 per 1,000 less than that for England and Wales.

A total death-rate of 10·61 per 1,000 is one of which any Borough of 50,000 inhabitants may well be satisfied. In 1908 and in 1897 the death-rate was a little lower, but otherwise the rate of the past year is Eastbourne's lowest.

The rate of 9·90 per 1,000 in 1908 was the lowest recorded in Eastbourne; in 1897 it was 9·91 per 1,000, the next lowest rate.

The table above shews that the total death-rate for 1909 was 0·72 per 1,000 below the average, and the resident death-rate a fraction above the average. The number of non-residents who died was again smaller than usual.

A rate of 0·72 per 1,000 below the average in a population of 52,000 shews an extra saving of 37 lives in 1909 as compared with the average of the previous 10 years.

The Borough supplies the surrounding districts with the General Hospital (Princess Alice Memorial) and the Union Infirmary and Workhouse, and deaths in these and in the various convalescent homes and smaller hospitals of the district go to swell the Eastbourne death rate. In spite of this, the total rate is very satisfactory.

In 1909 the total death-rate was 3·9 per 1,000 below that for England and Wales; in 1908, 1907, 1906, 1905, 1904, 1903, and 1902 it was 4·8, 4·1, 4·7, 4·0, 5·7, 4·4, and 4·01 per 1,000 lower respectively.

In making comparisons, it is to be noticed that the total rate has been taken in each case.

A corrected rate obtained as follows is used in the Local Government Board Tables.

The total deaths were 552; there were 22 deaths in Eastbourne in institutions of non-residents, leaving 530 deaths; to these are added deaths of 18 Eastbourne persons who died in institutions elsewhere, leaving a nett total of 548 and a corrected death-rate of 10·5 per 1,000 per annum.

In the detailed tables in the Appendix it will be found that the deaths of the 22 non-residents who died in institutions are excluded by order of the Local Government Board. The remaining 10 non-residents' deaths should with equal reason be excluded, for Eastbourne being a watering place, there are many more visitors to Eastbourne who are likely to die than there are residents of Eastbourne likely to die visiting elsewhere. These cannot be calculated, however, and so the correction cannot be carried farther than by saying the real nett corrected death-rate would be smaller than 10·5 per 1,000.

#### SEASONAL MORTALITY.

The deaths during the last five years, 1905, 1906, 1907, 1908, and 1909, occurred in months as follows:—

		1909.		1905.		1906.		1907.		1908.	
First Qr.	... 185	{ January ... 53 February ... 48 March ... 84		164	{ 63 44 57	132	{ 44 45 43	164	{ 50 58 56	143	{ 37 66 40
Second Qr.	... 116	{ April ... 39 May ... 44 June ... 33		138	{ 54 35 49	136	{ 49 41 46	133	{ 53 44 36	120	{ 37 48 41
Third Qr.	... 110	{ July ... 32 August ... 40 September ... 38		107	{ 42 30 35	136	{ 49 35 52	111	{ 33 36 42	115	{ 35 36 44
Fourth Qr.	... 141	{ October ... 35 November... 45 December... 61		113	{ 38 32 43	120	{ 40 37 43	147	{ 59 36 52	126	{ 37 39 50

It will be noticed that in Eastbourne March is often the most fatal month; July, August, and November the least fatal months. In 1909 March and December were unusually fatal months.

The following table shews how the death-rate of Eastbourne compares quarter by quarter with that of England and Wales:—

1909. Districts.				1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year.
Eastbourne	...	...	...	14'2	8'9	8'4	10'8	10'6
England and Wales.	76 great Towns	}		18'7	13'9	11'8	14'3	15'6
	143 smaller Towns	}		17'1	13'3	11'3	13'8	14'5
	Rest of the country.	}		18'1	19'5	11'6	14'1	13'6

The death-rate of Eastbourne in the third quarter was, as usual, very low; infantile mortality from diarrhoea does not have such effect as elsewhere.

#### SEX MORTALITY.

The fact that there is an excess of females in Eastbourne would lead to a slightly diminished death-rate, since the death-rate for females is usually lower than that for males. The 552 deaths of 1909 were divided as follows:—

Males—Deaths, 251; Death-rate, 11'6 per 1,000.

Females— „ 301; „ 9'9 „

This is based on the estimate as to the proportion of sexes given under “Population” earlier in this Report.

The difference between the death-rate for males and that for females was most marked in 1906, when it was 6'1 per 1,000.

The deaths of males out of proportion to those of females were especially due to the following diseases:—Consumption (not so marked a difference as usual—32 to 26), Convulsions (4 to 1), and Violence (7 to 3).

The deaths of females were in excess in Cancer (36 to 14), Old Age (26 to 9), Apoplexy (23 to 11), and Bright's Disease (10 to 5).

#### AGE MORTALITY.

The age groups of the population have been given earlier in the Report, there being a slight excess in Eastbourne of young persons of a healthy age.

The death-rates at different ages and of different sexes are in some respects more important for instituting comparisons than the total death-rate, since in them there are no age and sex fallacies ; hence the following table is again subjoined for 1909 :—

Males.				Females.			Both Sexes.		
Ages.	No. living.	Deaths	Death-rate per 1,000 living at each age group.	No. living.	Deaths	Death-rate per 1,000 living at each age group.	No. living.	Deaths	Death-rate per 1,000 living at each age group.
Under 1...	470	42	89·3	488	29	59·4	958	71	74·1
1—5 ...	1844	8	4·3	1807	12	6·6	3651	20	5·4
Total under 5...	2314	50	21·6	2295	41	17·8	4609	91	19·7
5—15 ...	5260	12	2·2	4915	10	2·0	10175	22	2·1
15—25...	4225	10	2·3	7348	12	1·6	11573	22	1·9
25—65 ...	8905	107	12·0	14295	113	7·9	23200	220	9·4
65 & over.	980	72	73·4	1463	125	85·4	2443	197	80·6

The death-rate for male children under one is 89·3 per 1,000, for females only 59·4. The male death-rate exceeds the female rate at every age group except at ages 1 to 5 and over 65, but at no age so greatly as in the case of infants.

#### SENILE MORTALITY.

Of the 552 deaths which occurred in 1909, there were 197 of persons over 65 years of age.

Between 65 and 75 years of age, 99 ; Males 34, Females 65.

„ 75 and 85 „ 75 ; „ 30, „ 45.

Over 85 „ 23 ; „ 8, „ 15.

#### DEATHS OF VISITORS.

There were 32 deaths of non-residents in Eastbourne—22 patients from districts outside Eastbourne, in hospitals, etc., and 10 general visitors.

## DISTRICT MORTALITY.

The deaths during 1909 were distributed over the various Districts of the Borough as shown in the following table. The deaths which occurred in institutions have been included in the District from which the deceased had entered the institution :—

Districts.	No. of Deaths, 1909.	Annual Death-rates per 1,000.				
		1909	1908	1907	1906	1905
East ... ..	248	11'8	11'1	12'2	11'9	11'6
Central ... ..	107	10'6	9'4	11'7	9'2	11'0
West ... ..	51	7'4	4'7	5'3	6'2	9'1
St. Mary's ... ..	124	8'7	8'9	9'4	9'8	9'6
Deaths of non-residents in Institutions ...	22	—	—	—	—	—

The death-rate in the East District, where there is such a large number of births and where the social condition of the people is not so good as in the other Districts, is most satisfactory, and is a testimony to the way its sanitation is looked after.

The causes of death in excess in the East District as compared with the other Districts were naturally those of infancy, such as Premature Birth, Congenital Defects and Diarrhœa, and, besides these, Consumption and Cancer.

There were 124 deaths in institutions as follows :—

Institution.	Ward.	No. of Deaths.
Workhouse ... ..	St. Mary's ... ..	61
Princess Alice Hospital ... ..	St. Mary's ... ..	44
Borough Sanatorium ... ..	St. Mary's ... ..	15
Other Institutions ... ..	St. Mary's, East & West.	4

The deaths in this table have been properly distributed over the various Districts in calculating their rates.

## INFANTILE MORTALITY.

The total number of deaths of infants—that is, of children of ages under one year—was 71: males, 42; females, 29. Infantile Mortality is calculated on the number of births registered, and for 1909 was at the rate of 81 per 1,000 births.

As will be seen from the following table, this is the smallest number of deaths and the lowest Infantile Mortality rate for Eastbourne in recent years, and is 25·3 below the 10 years' average rate per 1,000 births :—

Year	Deaths under 1 year.	Mortality per 1,000 births.
1899	136	145
1900	108	121
1901	94	104
1902	101	111
1903	97	108
1904	89	92
1905	87	102
1906	79	88
1907	92	105
1908	83	87
Average of 10 years. }	96·6	106·3
1909	71	81

The rate is more important than the number of deaths. In the rate, the actual number of infants born is taken into account.

The total infantile mortality rate of 81 per 1,000 births includes all births, and is 19 below the 100 per 1,000 which has been mentioned as the lowest infantile mortality rate that a large town might aim to obtain. It is therefore very satisfactory.

Comparison with the 145 of 10 years ago is evidence of the value of progress in health conditions.

Out of about the same number of children born there was a saving of infant life of no less than 65 in 1909 as compared with 1899, and though the difference as compared with other years is not so great, it is sufficiently striking if any former year is taken for comparison.

The infantile mortality rate for legitimate children was 76 deaths per 1,000 births.

The rate for illegitimate children was 174 deaths per 1,000 births.

In other words, one in every 13 legitimate children died in their first year, whereas one in eight of the illegitimate children died.

The rate in Eastbourne of 81 is very satisfactory, for the infantile mortality for England and Wales per every 1,000 births in 1909 was 109. Infants in Eastbourne died to the extent of 81 in every 1,000 births, the difference being, therefore, 28 per 1,000 births, or in detail a mortality of 37 per 1,000 births less than that of the 76 great towns, 30 per 1,000 less than that of the 143 other towns, and of 17 per 1,000 less than that of the rural districts. The rate in England and Wales was itself the lowest recorded by a long way.

Thanks to its climate and other advantages, Eastbourne ought always to have a rate below the average of the country generally.

Of the 71 infants dying in 1909, 32 died in the first month and 52 in the first six months of life; 17 died in the first week of their existence.

In the Appendix there is a table shewing the causes of the 71 deaths of infants. Prematurity accounted for 13, Bronchitis and Pneumonia for 6.

Infantile Diarrhœa was again uncommon, and the disease was well kept in hand, the deaths being but 3.

The Notification of Births Act led to the visiting of a very large number of cases of birth. Up till the autumn the

visiting was done occasionally by myself, but usually by Dr. Oberdorfer. The appointment of a "School Nurse" in October has made more regular visiting possible, and Miss Clark visits every birth where it is possible she can give any helpful advice or be of any use. Miss Clark's visits are much appreciated as a rule.

Under this Act 805 births were notified, or 91.9 per cent. Warning letters were sent in instances where the notification was omitted, always through ignorance or similar reasons. At all events, no wilful suppression was discovered.

It is an interesting fact that the first year's complete working of the Notification of Births Act shews also a record lowness of Infantile Mortality.

Miss Clark only began her duties in October. She visited 57 cases of birth and altogether paid 96 visits to these.

In 13 instances the poverty owing to unemployment was so great that charitable help had to be obtained.

Fifteen of the 57 children are being hand-fed.

Of the 71 deaths of infants, 54 occurred in the East, 3 in the Central, 1 in the West, and 12 in St. Mary's Districts, the remaining 1 being a non-resident in an institution.

The subjoined tables shew the principal causes of deaths of infants in 1909 and in recent years :—

Deaths.	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
From Zymotic Diseases ...	27	28	20	23	17	14	13	12	16	9
Parasitic Diseases ...	—	1	—	1	—	—	—	—	—	—
Constitutional Diseases ...	3	6	5	2	8	4	3	6	3	5
Developmental Diseases ...	26	21	25	29	25	35	29	36	31	32
Local Diseases ...	36	28	37	34	30	27	23	35	18	23
Deaths from Violence ...	—	4	2	1	2	1	2	2	3	—
Deaths from ill-defined and not specified causes ...	16	6	12	7	7	6	9	1	12	2

This table indicates the continued decrease in Zymotic deaths from year to year recently, and the number in 1909 is by some way the smallest:—

### ZYMOTIC DEATHS OF INFANTS.

Disease.	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Measles ... ..	—	—	8	—	—	—	3	—	—	2
Whooping Cough ... ..	3	3	1	13	2	7	—	3	2	—
Diarrhoea ... ..	18	24	5	5	11	2	8	7	14	3
Other Zymotic Diseases (chiefly Influenza ... ..)	6	1	6	5	4	5	2	2	—	4

### The Causes of Death.

The deaths at all ages recorded during 1909 were distributed amongst the various classes of disease as follows. Deaths during 1907 and 1908 are similarly classified for comparison:—

Class.	Disease.	No. of Deaths.			Percentage of Total Deaths.		
		1909	1908	1907	1909	1908	1907
I.	Zymotic Diseases ...	51	57	47	9'3	11'8	8'5
II.	Parasitic and Dietic Diseases	3	3	4	0'6	0'5	0'7
III.	Constitutional Diseases.	133	110	132	24'1	21'5	23'8
IV.	Developmental Diseases	67	66	80	12'1	12'8	14'4
V.	Local Diseases ... ..	284	235	277	51'4	46'0	49'9
VI.	Deaths from Violence...	10	19	12	1'8	3'6	2'1
VII.	Deaths from ill-defined and not specified causes	3	14	2	0'6	2'7	0'4
VIII.	Not certified ... ..	1	6	1	0'1	1'1	0'2
		552	510	555	100'00	100'00	100'00

## Deaths from Zymotic Diseases.

The Zymotic death-rate of the Registrar-General refers to the rate caused by deaths from the seven principal Zymotics as follow :—Small-Pox, Measles, Whooping Cough, Scarlet Fever, Diphtheria, Fever (Typhoid, Typhus, Continued), and Diarrhœa. The other Zymotic diseases include Miasmatic, Septic, Venereal, and Zoogenous Diseases.

These diseases in 1909 formed 9·3 per cent. of the total deaths in Eastbourne. The previous smallest percentage was 8·5 in 1907.

The Zymotic rate is to some extent the barometer of the healthiness of a district as regards preventible diseases, and the result of years of Sanitary effort is shewn in the diminished Zymotic death-rates of recent years.

In the Appendix there will be found a complete table shewing the deaths from the seven principal Zymotic diseases compared with those of other years. The 51 Zymotic deaths of 1909 resulted from the following diseases :—

Disease.	Males.	Females.	Total.
Chicken Pox ... ..	1	—	1
Influenza ... ..	9	11	20
Measles ... ..	3	4	7
Diphtheria ... ..	6	5	11
Diarrhœa ... ..	1	2	3
Pyæmia, Septicæmia, etc. ...	2	2	4
Enteric Fever ... ..	2	1	3
Scarlet Fever ... ..	2	—	2
Totals... ..	26	25	51

Whooping Cough is a noticeable absentee from the above list, also Erysipelas for the second year in succession.

Scarlet Fever re-appears ; the two deaths from it followed Mastoid operations after discharge from the Hospital.

The Zymotic death-rate for 1909—that is, the death-rate from the seven chief Zymotic diseases—was 0·50 per 1,000 per annum. In 1908 it was 0·69, in 1907 0·35, and in 1906 0·43.

In Table VI. in the Appendix will be found the Zymotic deaths and death-rates for the previous 10 years, and it will be seen that the rate for 1909, in spite of the large number of cases of infectious illness, is well below the average and better than in 1908.

The lowest rate was in 1907, when it was 0·35, and the highest in recent years in 1899, when it was 2·04.

The Zymotic death-rate for England and Wales in 1909 was 1·12 per 1,000 per annum, or over twice as great Eastbourne's rate. For the 76 great towns it was 1·42, for the 143 smaller towns it was 1·08, and for the rural districts 0·8 per 1,000 per annum.

The Eastbourne Zymotic death-rate is satisfactory, although above the smallest. Including Influenza and the other diseases not "principal epidemic diseases," the rate was 0·98 per 1,000.

The Zymotic rates of the respective Districts for 10 years are shewn to be as in the following table :—

Year.	No. of Deaths.	Zymotic Death-rates.					
		Districts.				Town.	
		East.	Central.	West.	St. Mary's.	Death-rate from seven chief.	Total.
1900	74	1'90	1'30	1'10	1'30	0'69	1'51
1901	54	1'75	0'55	0'45	1'71	1'01	1'24
1902	64	2'07	0'92	0'97	1'19	0'74	1'44
1903	57	1'96	1'03	0'16	0'80	0'80	1'27
1904	45	1'41	0'41	0'00	1'31	0'52	0'98
1905	45	1'07	0'50	0'62	1'11	0'40	0'94
1906	39	1'33	0'30	0'29	0'63	0'43	0'79
1907	47	1'17	0'90	0'15	0'90	0'35	0'93
1908	57	1'4	1'2	0'1	0'6	0'69	1'10
1909	51	1'04	1'09	0'59	0'98	0'50	0'98

The highest recorded inclusive Zymotic rate in recent years for Eastbourne was in 1899, when it was 2'08, and the lowest in 1907—viz., 0'38 per 1,000 per annum.

The Zymotic deaths were distributed as follows:—East District, 22; Central, 11; West, 4; and St. Mary's, 14, the rates being as in the table above.

#### INFLUENZA.

Twenty deaths were registered from this disease in 1909, the average for the past 10 years being between 16 and 17. This disease has since 1890 become a permanent feature of the death lists of each community in England. There were as many as 33 deaths in 1895 and as few as 4 in 1896, but in each year there have been some deaths from Influenza. The deaths occurred at all ages, but principally late in life; two more females than males died.

## MEASLES.

There were seven deaths in 1909 from this disease. The 10 years' average had been 4·3 deaths.

Measles was very prevalent throughout the year, and in August, at my request, the Sunday Schools in St. Mary's District were temporarily closed.

## SCARLET FEVER.

Two deaths were registered from this disease. Both were in boys who were operated on for ear disease after they had left the Infectious Diseases Hospital.

In the previous 10 years there had been five deaths only. The fatality for 1909 was under 2 per cent.

## DIPHTHERIA.

The deaths numbered 11, as compared with a 10 years' average of 4·3. The fatality was between 4 and 5 per cent. of the cases. Thanks to antitoxin, even this small fatality could be annihilated if cases were sent in to the Hospital immediately or antitoxin given at once outside.

## ENTERIC FEVER.

There were three deaths in 1909. Average, 1899-1908, 1·9.

## WHOOPING COUGH.

No deaths. Previous 10 years' average, 8·6.

## PUERPERAL FEVER.

No deaths.

## ERYSIPELAS.

No deaths.

## DIARRHŒA.

The capital reduction in number of deaths from this disease has been continued in 1909. Only once has there been fewer deaths. Three cases only were registered, and these not in the summer months, so that they were probably not Zymotic deaths.

The wet and cold weather of the year assisted in this saving of life, but the effect of sanitation and increased

frequency of removal of refuse is the main item, as the figures in Table VI. in the Appendix shew.

The 10 years' average had been 16 deaths, the average for the first five of these 10 being 23 and for the second five 10.

As Diarrhœa depends somewhat on meteorological conditions, it is difficult to compare year with year. It is better to compare place with place in the same year.

The following table compares Eastbourne with other places in this respect:—

*Summer Quarter, 1909.*

*Death-rates from Diarrhœa.*

England and Wales...	...	...	0·65 per 1,000
The 76 large towns...	...	...	0·96 „
The 143 smaller towns	...	...	0·59 „
The Rural Districts	...	...	0·31 „
Eastbourne ... ..	...	...	<i>Nil</i>

No other fatal Zymotic case in 1909 calls for special remark.

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### Dietetic and Parasitic Diseases.

In these classes of disease there were three deaths directly ascribed to Alcoholism. The recent average has been about four per year. Similar cases are sometimes put down to other concurrent maladies, and in 1909 four other deaths may fairly be set down to Alcoholic excess, having been certified as from Cirrhosis of the Liver. These figures are the same as in the previous year.

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### Constitutional Diseases.

The deaths from these diseases being tabulated in the Appendix, only the more important ones are, as usual, referred to here.

## RHEUMATISM AND GOUT.

Four deaths were registered from diseases associated with Rheumatism, one from Acute Rheumatism, and none from Gout. The average for 10 years was five, including both diseases.

## CANCER.

Fifty deaths in 1909 were ascribed to the various forms of "Cancer"—25 to Carcinoma, 5 to Sarcoma, and 20 to "Cancer" generally.

The average for the previous 10 years was 44·4 deaths per annum, and in 1908, 1907, and 1906 the deaths were 43, 53, and 54 respectively.

Most of the patients were from 45 to 75 years of age, and they were 14 males and 36 females. The youngest patient was in the 5 to 15 group, the eldest over 85. Five were non-residents.

In the females the parts affected were, as usual, mainly the generative organs, the breasts, and the stomach and intestines. In the males the disease was spread over many more parts of the body, principally being connected with the alimentary canal from the mouth and stomach to the intestines.

The rate in Eastbourne in 1909 was 0·9 per 1,000—males 0·6, females 1·18, and Cancer caused just over 9% of the total number of deaths. In England and Wales for the last published year (1908) the rates were 0·81 for males and 1·02 for females, and steadily increasing.

## TUBERCULOSIS.

No additional measures for combating this disease have been taken in 1909 beyond those already described in previous Reports. The compulsory notification in Poor Law cases has given us, however, more information to act on, so that we reach a larger number of cases.

The numbers of notifications received were as follows :

Voluntary	...	...	...	...	...	...	38
Compulsory	}	From the Infirm'y. Medical Officers					35
		" District Medical Officers					17
		" Workhouse Master					10
		" Relieving Officers					1

These apply in some instances to the same case.

The measures taken in Eastbourne are :—

1. General attention to Sanitation, especially as regards predisposing causes of Phthisis—overcrowding, dampness, etc. Only a small percentage of persons can ever use Sanatoria, making it specially necessary to have each house a Sanatorium.
2. Cleansing and Disinfection after notification where possible and after removals.
3. Cleansing and Disinfection after death.
4. Education by visiting, leaflets, gifts of spit bottles.
5. Bacteriological examinations gratis to the poor.
6. Attention to food supplies.

What is lacking is means of Isolation, and on this I append a report made on the subject at the close of the year and the commencement of 1910.

There is no Tuberculosis dispensary in Eastbourne.

Fifty-eight persons died of Consumption in 1909, of whom 32 were males and 26 females, and five males and eight females of other forms of Tuberculosis. Only one was a non-resident. The Consumption rate was 1·11 per 1,000. The youngest case was that of an infant; the oldest were three patients over 75 years of age. The age periods 25 to 35, 35 to 45, and 45 to 55 suffered most, especially 35 to 45. The average for 10 years was 44·8 deaths from Tuberculosis of the lungs and 14·1 from other forms of Tuberculosis per year, so that in 1909 the cases were rather over the average for Eastbourne.

Ordinary Consumption caused 10·5% of the total deaths, and all forms of Tuberculosis combined caused 12·8% of the total deaths from all causes in 1909. This is higher than in 1908, when it was low.

The actual numbers of cases are given in the subjoined table :—

Disease.	Number of Deaths.									
	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Phthisis of the Lungs... ..	52	44	57	33	32	42	53	53	42	58
Other forms of Tuberculosis...	11	15	12	15	22	13	13	11	11	13

The last published rate for England and Wales was that of 1908—viz., 1·11 per 1,000 per annum (males 1·3, females 0·9). The rate for Eastbourne was 0·81 in that year.

A serious factor in Pulmonary Tuberculosis is that, as shewn by the figures above, it principally affects persons (especially males) at that period of their lives when they should be at work and when they have often families dependent on them.

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*To the Chairman and Members of the Sanitary  
Committee.*

GENTLEMEN,

In accordance with your instructions, I again submit to you a report on the suggestion to provide a Sanatorium for Consumptives in Eastbourne.

In 1908 Dr. Bulstrode, of the Local Government Board, after visiting and studying every sanatorium in the country, reported most fully in a large volume on the subject generally.

“As to the value of sanatorium treatment in pulmonary tuberculosis, Dr. Bulstrode does not consider it

possible to draw definite conclusions on the evidence so far available. But there can be no doubt, he thinks, that the *immediate* result to the individual of sanatorium treatment is in the main decidedly encouraging. It is as to 'after results'—*i.e.*, maintenance by the patient subsequent to discharge of his improved condition, brought about by his sojourn in a sanatorium—that Dr. Bulstrode is hesitant."

"Dr. Bulstrode considers that there can be no question that the average of lasting benefit would be materially enhanced were a system of selection generally adopted for securing as inmates persons in the earliest phase of their malady,"

These extracts are taken from the preface to Dr. Bulstrode's report written by the Principal Medical Officer to the Local Government Board, and I have quoted them here to shew what the state of our general knowledge as to the result of sanatorium treatment may be taken to be.

For treatment purposes consumptives may be conveniently grouped into three divisions, viz. :—

1.—Those so far advanced in the disease that death from it is merely a matter of a short time.

2.—Those who have the disease well advanced, but yet are continuing in their ordinary pursuits.

3.—Those whose disease is merely in a commencing stage.

While it is only for the third of these that sanatorium treatment holds out any prospect of permanent help, yet the first and second are those mainly concerned in the spread of the disease, for it is from cases in these groups that the diffusion of bacilli is going on.

Obviously, therefore, as far as the prevention of spreading the disease is concerned, dealing with the commencing cases by sanatorium treatment, while personally of value to

the patient, is chiefly of value to the community in that it may prevent them from becoming sources of danger in their turn at a later stage.

In a complete system of hospital treatment there remain still the more advanced and the very advanced cases. For these the Poor Law gives a certain amount of accommodation at the Infirmary. If the Sussex Poor Law Isolation Scheme now on the tapis comes to anything, it may form a most valuable basis on which to deal with these groups of cases.

The following is a summary of my report of Sept. 11th, 1905:—

*Extracts from a Report submitted to the Sanitary  
Committee on Sept. 11th, 1905.*

THE PROVISION OF A SANATORIUM FOR CONSUMPTION  
IN EASTBOURNE.

Excluding compulsory notification, among the many methods of combating the spread of Tuberculosis in its various forms, and especially Tuberculosis of the lungs, generally known as "Consumption," the only important one that is lacking in Eastbourne is the provision of isolation, or, in other words, of a Sanatorium.

I allude to a Sanatorium as a preventive measure, because that is its most important use. Sanatoria for Consumptives, if looked upon merely as curative institutions, are disappointing in their results. As institutions of isolation and education, however, they are very important.

The direct infectivity of Consumption is so easily controlled that isolation need not be compared with the isolation of the other infectious illnesses. Visiting and even close proximity are safe, and the Consumptive must not be looked on or treated as a social outcast.

The institution of a general Sanatorium in Eastbourne for all comers would be a serious mischief to the Borough. It would bring cases here and tend to spread rather than mitigate the evil. The climate also is not suited to the special treatment of advanced cases.

In this Report, therefore, as to the provision of a Sanatorium in Eastbourne, I confine myself to the idea of a Sanatorium on the following main lines, viz. :—

- (a) For such ratepayers of some years' standing and their families who have had the misfortune to develop Consumption.
- (b) For preventive and educative purposes mainly; at the same time doing what is possible also in a curative way for the patients themselves.

It is such a Sanatorium only, in my opinion, that the ratepayers could be fairly asked to provide for themselves.

Before going into details as to the provision of such an institution, it is necessary to be satisfied as to the need for a Sanatorium in Eastbourne.

In the absence of compulsory notification, it is difficult to arrive either at the number of cases of Tuberculosis in the Borough or the proportion of visitors to the total number of cases, or the proportion of ratepayers who would probably use a Sanatorium if established, but there are certain figures obtainable as follows.

The death-rates from Pulmonary Tuberculosis (which is the disease generally known as "Consumption") in Eastbourne have been :

1883-1892 (ten years)	...	1'03	per 1,000 living per annum.
1893-1902	„	1'01	„ „
1903	... ..	0'73	„ „
1904	... ..	0'69	„ „

These shew a decrease in the last twelve years without the provision of a Sanatorium. The rate for England and Wales averages yearly about 1'3 per 1,000, having steadily dropped from 1'8 per 1,000 twenty years ago.

The actual deaths from Pulmonary Tuberculosis in Eastbourne during the ten years 1895-1904 have numbered 434 and from other forms of Tuberculosis 158, a total of 592 deaths in ten years, all of which must be looked upon as preventable deaths.

A total of 592 deaths represents an average of just short of 60 per annum. Assuming the average length of each case to have

been three-and-a-half years, this would represent the existence always in Eastbourne of 210 cases of all forms of Tuberculosis and 152 cases of Consumption of the Lungs, all the latter capable of doing considerable mischief by spread of infection to others.

These 152 centres of infectivity, always present at one time, do not include all, for there are the patients who recover and those who die of other diseases. *Post-mortem* examinations shew that large numbers of Consumptives recover entirely, dying later on of other diseases. It is said that more recover than die. Assuming that an equal number recover, then there are 304 centres of infection. If only a quarter recover, there are at least over 200 dangerous persons.

Calculation of the possible number of cases by notification is of no use, because the notification in use in Eastbourne is voluntary and only partial. In 1904 there were 40 notifications.

The proportion of visitors in the above list of deaths is but small, as Eastbourne is, fortunately, not a favourite place for advanced cases. In 1904, an average year, the number was six, and visitors are probably the patients in about one-sixth to one-eighth of the cases in any one year. By "visitors" in this case is meant recent new comers to the Borough.

A number of the cases of Consumption drift eventually to the Workhouse. In Eastbourne one-tenth of the fatal cases occur in the Workhouse. During the five years 1900-1904 inclusive 208 persons died in the Workhouse; of these, 23 (18 males and 5 females) died of Pulmonary Tuberculosis or Consumption (and four of some other form of Tuberculosis, which, being probably non-infective directly, may be excluded). Thus 11% of the deaths in the Workhouse were due to Consumption, just about the same proportion as in the Borough generally.

The need for a Sanatorium for Consumption in Eastbourne is, therefore, the fact that there are at least 200 and probably over 300 centres of infectivity in the Borough from Lung Tuberculosis, independent of other forms of Tuberculosis, and that Consumption is a fertile cause of suffering, distress, and pauperism, especially as it attacks men and women at the most useful period of their lives.

No possible means of checking the spread should therefore be neglected.

That only a small proportion (almost exactly a tenth) of the deaths in ten years occurred at the Workhouse shews that the great bulk of the cases are at large, and only a minority being notified, it is presumable that adequate precautions are not being taken in most of the cases.

No doubt those patients in a position to afford constant medical attendance are well instructed in preventive measures, but the majority will not have a medical attendant during the longest part of the illness, and are either ignorant of or ignore the proper precautions.

Unfortunately, want of means also makes proper isolation at home impossible in many of the cases.

The scheme that should in the main idea be adopted in Eastbourne, in my opinion, should be on the lines of that so successfully devised and inaugurated by Dr. Newsholme at Brighton.

The good achieved there may be summarised as follows :—

- (I.) The working life of the patient has been prolonged.
- (II.) The period at which the patient or his relatives may become dependent on charitable or parochial relief has been postponed.
- (III.) Some cases have been cured.
- (IV.) Every patient has been trained, so that when he leaves the Sanatorium he is much less likely to act in a manner which will make him dangerous to his family or to his fellow-workmen.
- (V.) During his stay in the Sanatorium his home has been cleansed and disinfected. Hence on his return he “starts fair,” with a diminished prospect of re-infection by external dust.
- (VI.) The same applies to his relatives and fellow-workmen, who have had, furthermore, an interval of freedom from exposure to infection. This is a matter of great import, for it is chiefly protracted and continuous infection which is dangerous.

Thus, even if the patient is not cured, great good is achieved for the patient, and still greater good for the town.

Patients have, as a rule, been treated for only four weeks, the idea of training the patients and preventing risk to others having, in view of the primary functions of Sanitary Authority, been kept in the foreground. If more patients could be treated, and for longer periods, much greater good could be done.

With reference to the financial aspect, it must not be overlooked that what is spent out of the District Rate on the prevention of Consumption will to some extent be recovered out of the Poor Rate, owing to the large amount of pauperism caused by Consumption.

I have reported to the Committee on the possibility of using a block in our Infectious Diseases Hospital similarly to the method at Brighton, and, owing to its position and peculiar circumstances, this could not be advisedly done. Our present Sanatorium is unique in its arrangements for schools and in other respects, and its use would, I fear, be fatally damaged by such an addendum. Moreover, there is no appropriate vacant block.

There is, however, no reason, except financial, why a building or buildings elsewhere should not be similarly used as an institution for Consumptives worked on the lines of the Pavilion in the Brighton Sanatorium. These lines must be definitely understood as follows:—

- (a) The idea is preventive and educative, and not merely curative.
- (b) Ratepayers of some length of residence and their families only admitted.
- (c) It is not to replace in any way the Workhouse Infirmary; the patients are not to be paupers, and they are not to be hopeless, chronic cases.
- (d) The stay would be one, two, or three months only.

The first possibility is the building of a special block for Consumptives near enough to the present Sanatorium to allow some supervising management by the staff. This would be satisfactory in many ways, especially for economy of management.

Obvious disadvantages of this proposal are the proximity to the Infectious Diseases Hospital, and the possible injury to the neighbourhood by the proximity of a Consumption Hospital owing to sentiment, both really trivial. The difficulty and expense of getting the land and the building are much more serious.

A second method might be to take a house or cottages in a healthy part and fit them up, but the administrative difficulties of this sort of scheme are exceedingly great. Regulation of conduct, of visitors, and of food supplies is difficult in a set of cottages; the isolation is not good and there are no grounds. The scheme would hardly be worth the expense, I believe. This idea has been mentioned and has been tried in places, I think, but it is hardly worth considering.

There remains a third inexpensive idea, and that is the erection of pavilions adjoining the Small Pox Hospital, and use by the staff of a part of the present buildings. This has been done elsewhere.

In favour of this scheme is the comparative inexpensiveness of the experiment, the site being already in the Council's hands.

Among the objections that naturally occur to one *re* this site are :

- (1) That it is adjoining the Small Pox Hospital.
- (2) Its distance from the town.
- (3) The bleakness of the site in winter. It is a very open and sunshiny site, but the full force of the winds is felt.
- (4) Many Eastbournians are not vaccinated.

The erection of a new permanent building at a cost of about £2,000 to £3,000 (besides the site) for fourteen persons near the present Sanatorium, or on any other good site, is, I think, the only really practicable plan. It is possible that a portion of the five acres of the Sanatorium grounds might be separated for the purpose, except that no separate road can be obtained into the grounds.

To the above I would also add :—

Another method of dealing with consumptives is to pay for beds in existing Sanatoria. There are Sanatoria in Sussex at Midhurst, Littlehampton (children), Eversfield,

St. Leonards (subscribers of £1 1s. are provided with one in-patient's letter and the patient pays 13/- weekly—four weeks), and Fairlight (males only, 15/- weekly, or 11/6 with subscriber's letter—six weeks), besides the Brighton and Lewes Infectious Diseases Hospitals.

The £2,000 to £3,000 estimate mentioned in the last paragraph of the above report is based on the cost of the last new block built in the Isolation Hospital grounds, and refers to the one building only and without allowance for administration.

If such a block were built near the Infectious Diseases Hospital, the Matron of the latter might give general superintendence and the Medical Officers some assistance. The disinfectors would also be easily available; in every other respect the staffs would have to be entirely separate.

Additional objections to the use of the Small Pox Hospital are the absence of water supply and the distance from medical help, provisions, shops, etc. If these could be got over, the buildings already existing would, of course afford the cheapest method of dealing with the disease.

The Poor Law Unions of East Sussex have arranged a conference with a view to joint action for the isolation in a general Sanatorium of the Poor Law cases from each Union. If this idea is carried out it may prove to the mutual advantage of the Guardians and the Sanitary Authorities to allow the latter to pay for the use of beds in such an institution.

Though no scheme for the isolation of consumptives can be absolutely perfect without the expenditure of a very large sum of money, it is practically possible within a moderate expenditure to provide a Sanatorium where early cases might have a few weeks' education and treatment, and if the Poor Law scheme is put into operation very advanced cases will be isolated.

There will remain, however, the majority of the cases that are causing much of the spread—namely, those advanced

cases where the patient must be at work for the sake of the family or other reasons. It is obviously impossible for many to give up the time for a course of Sanatorium treatment without monetary compensation. Some of these cases, however, by careful sorting can be put either among the commencing or more advanced cases according to circumstances and get isolation when opportunity offers.

If the Authority can see its way to incur the necessary expenditure, I should advise the building of a small hospital for commencing cases, and at the same time strongly support the Poor Law scheme. If the Poor Law Authorities get sufficient grounds, they might let off a portion to the Sanitary Authority for a special block, otherwise land will have to be obtained in or near Eastbourne. The cost of erection of a hospital, say of 20 beds, judging from the experience of others and of recent building of hospital blocks in Eastbourne, would be about £5,000.

While feeling strongly that a Sanatorium is only one factor in the prevention of Consumption, and that persistent progress in general Sanitation has produced and is producing good results, I have no doubt that a small Sanatorium worked on the lines of the Brighton Sanatorium would be of good service to the Borough.

Taking all the circumstances into consideration, I should suggest as the best of the schemes mentioned a new building of about twenty beds, and costing, irrespective of site, about £5,000 to build and equip.

I am, Gentlemen,

Your obedient Servant,

W. G. WILLOUGHBY.

*January 17th, 1910.*

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### Developmental Diseases.

There were 13 deaths from Premature Birth in 1909. The 10 years' average had been 18·6. There were, however, 19 also from Congenital defects, Marasmus, etc.

Of these 32 deaths, 22 occurred in the East District, naturally because there were most births there; 5 occurred in St. Mary's District, a natural proportion considering the births there.

There were 35 deaths ascribed to old age, the 10 previous years' average being about 28.

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### Local Diseases.

Diseases of the Nervous System caused 23 deaths, 5 from Meningitis and 5 from Convulsions being the largest groups.

Diseases of the Heart and Blood Vessels caused 119 deaths, the chief groups being general Heart Disease 38 and Apoplexy 34.

Diseases of the Respiratory System, apart from Tuberculosis of the Lungs, caused 52 deaths, 24 from Bronchitis and 24 from forms of Pneumonia. Eleven of these deaths were in children under 5. The 10 years' average was 62·4.

This is again a comparatively low death-rate from Respiratory diseases—viz., 1·00—and speaks well for the equability of climate. The rate for England and Wales in 1908 was 1·30 and in Eastbourne that year was 0·87.

Diseases of the Digestive System caused 44 deaths, 4 of which were from Cirrhosis of the Liver, probably Alcoholic.

Appendicitis caused 5 deaths.

Diseases of the Urinary System caused 19 deaths, 17 being from Bright's Disease or inflammation of the kidneys.

The Table in the Appendix gives details of these and other groups; they are in about the same proportion as in other years, except that deaths from diseases of the Respiratory System were again fewer.

### Deaths from Violence.

There were 10 deaths from Violence, a number below the average. In 1906 there were 30, in 1907, 12, in 1908, 19. The average for the previous 10 years was 16·4.

Of these 10 deaths (about 1 in every 55 of the total deaths), 5 were due to accident or negligence, and there were 4 suicides. Of the 5 accidents, etc., 2 were in cases of non-residents.

The accidental and negligent deaths included 3 males and 2 females. The suicides were 3 males and 1 female.

The deaths from all forms of violence were in the proportion of 0·19 per 1,000 of the population, as compared with 0·54 per 1,000 for the whole country in 1909.

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### Deaths from Ill-defined and not Specified Causes.

There were 3 deaths registered in 1909 the causes of which were not clearly specified.

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### Uncertified Deaths.

I have to record that 1 death was uncertified. The law allows this scandal, and so a legal loophole for crime remains. In England in 1909 the causes of 1·4% of the total deaths were uncertified. In Eastbourne of late there have been very few.

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### Inquests.

Thirty-two deaths on which Coroners' inquests were held were registered in 1909, a decrease compared with the 10 years' average of 32·4. The Chief Constable's report contains details. In England generally inquests were held on 7% of the deaths, and in Eastbourne on 6%.

## **SANITARY WORK, 1909.**

The remainder of this Report includes as far as possible a description of other work done in connection with House Sanitation, Legal Proceedings, Proceedings in connection with Nuisances, Offensive Trades, Factories, Workshops and Workplaces, Bakehouses, Dairies, etc., to complete the details required by the Local Government Board in their Memorandum on Annual Reports of Medical Officers of Health.

In this section is also found the report as to Meat Inspection and the administration of the Food and Drugs Acts.

The tables and other matter are as nearly as possible in the same order and form as in previous years.

In accordance with Section 132 of the Factory and Workshops Act, 1901, I also "report specifically on the administration of this Act in Workshops and Workplaces," and have sent a copy of this Report to the Home Secretary.

Inspection of houses by the Medical Officer of Health in accordance with Section 26 of the Customs and Inland Revenue Act, 1890, has also been carried out on the occasional instances necessary.

The Staff consists of an Assistant Medical Officer of Health (part time), three Inspectors, two Clerks, and a general Handy Man for assisting in disinfection, drain testing, etc.

In October, at my request, an additional Assistant Sanitary Inspector (Mr. Francis) was taken on to do a rapid house-to-house inspection in the Eastern District under Mr. Spears.

Miss Oberdorfer, M.B., Ch.B., D.P.H., has been engaged in assisting at the general work of the Department when not engaged on School Inspection.

The School matters are dealt with in our special report.

The areas over which the three Inspectors work are arranged according to the old Wards, for the four original Wards, though of unequal populations and areas, were and are useful units for the formation of districts for Sanitary work. In the West Ward drainage work and the details of house sanitation form a large part of the duties ; in the East Ward, with its poor and dense population, the greatest opportunities are afforded for carrying out Public Health work in all its branches, with life-saving and health-improving results. As it is the only Ward with a birth-rate above 20 per 1,000, the East Ward is particularly important from a Public Health point of view. The Central and St. Mary's Wards combine both the well-to-do and the poorer elements of population. The Inspector for St. Mary's Ward is also Meteorologist.

The work in 1909 was exceedingly difficult to keep pace with, hence the appointment in October of the additional Inspector. He left again in January, 1910, so that at the time of publication the staff is of its normal size.

From enquiries made it appears that the staff is kept up at a cost as regards Inspectors less than that of any other health resort of its size in the Kingdom, and less than that of many smaller resorts.

The three Sanitary Districts are :—

1. The East District—Population (estimated 1909), 20,960. Mr. E. G. Spears, Sanitary Inspector (Chief).
2. The West and Central Districts—Population together, 16,860. Mr. J. H. Ollett, Sanitary Inspector.
3. The St. Mary's District—Population, 14,180. Mr. S. R. Henderson, Sanitary Inspector and Meteorologist.

All the Sanitary Inspectors have diplomas, and have, each in his own district, full charge in all respects under the Medical Officer of Health, there being no special Inspectors for Food and Drugs Acts, Infectious Disease and Disinfection, etc.

### Infectious Diseases, 1909.

	East District.	Central District.	West District.	S. M'ry's District.	Total.
Number of cases notified ...	236	66	17	190	509
Number removed to Sanatorium.	226	64	16	180	486

The Inspectors' work regarding these has been mentioned earlier in the Report. Each case involves visiting and disinfection.

Besides the work done in connection with notified cases, disinfection was frequently done in other instances, regularly as regards Phthisis, and sometimes after Cancer, Measles, Chickenpox, etc.

Cases have also been removed to Acacia Villa. This house is used for the reception of persons whose homes are being disinfected and for occasional doubtful cases, or cases that for some reason, while not suitable for the Sanatorium, require temporary isolation.

### House Sanitation.

The up-to-date nature of the sanitary details of Eastbourne houses is a special feature of the Borough, and undoubtedly partly responsible for the diminishing death-rate. The death-rate in 1909 was again very low.

Constant attention to sanitary details in houses is most important for the general health of the people. The issuing of Sanitary Certificates has been an important factor in getting good work done.

House-to-house visiting by the Inspectors is done to some extent, but their time has been almost entirely taken up by dealing with matters brought to their notice directly or indirectly.

The temporary appointment of Mr. Francis enabled a rapid survey of all the poorer houses in the Eastern District to be made in 1909, and this led to a reduction of a large number of minor nuisances, such as defective w.c.'s, dilapidated dustbins, conditions causing dampness of houses, etc.

On receipt of information as to a sanitary defect or nuisance, the attention of the owner or occupier has been called to the fact either verbally or by letter. The great majority of nuisances, except urgent ones, are dealt with in this way. If no steps are taken to abate the nuisance or remedy the defect, the matter is brought before the Sanitary Committee and a legal notice is served. If, again, no steps are taken on the issue of this notice, the attention of the owner or occupier is again called to the matter by letter, and legal proceedings follow. The number of legal proceedings for house sanitation is now practically *nil*.

Notices for structural repairs are always served on the owner; for keeping the house clean and in a satisfactory state the tenant is responsible.

At the end of 1905 the Council transferred all drainage work of existing houses, and in houses for Sanitary Certificates, from the Building Surveyor to the Sanitary Department. Time, expense, and irritation to builders and the officers themselves have been saved by this new procedure, and there have been no difficulties in its working.

A summary of some of the work done by the Inspectors throughout the year, especially with regard to structural work in older houses, abating nuisances, and general improvement of sanitary conditions is subjoined. Much of the work has been done in connection with the granting of Sanitary Certificates. It is not possible to tabulate all the work.

## RETURNS AS TO STRUCTURAL ALTERATIONS.

	Central & West.	East.	S. Mary's.
Drains examined and tested ... ..	291	453	183
„ re-laid and amended ... ..	229	287	151
Interceptors fixed ... ..	89	30	62
Drain ventilation improved... ..	108	159	41
New w.c. apparatus provided ... ..	231	215	137
W.c. apparatus repaired ... ..	523	136	41
W.c. flushing power improved ... ..	422	220	19
D-traps removed ... ..	31	2	2
New soil pipes fixed ... ..	131	61	77
Soil pipe ventilators enlarged ... ..	136	70	9
New main taps provided ... ..	213	120	55
Waste pipes trapped ... ..	389	205	67
Sanitary dustbins provided... ..	278	279	81
Back yards paved or repaired ... ..	131	220	74
Sinks renewed or repaired ... ..	280	165	45
New sink wastes ... ..	363	229	67
Safes provided under w.c. ... ..	167	37	64
W.c. cisterns fixed ... ..	182	134	61
Cleansing of premises ... ..	385	226	73

The above refer to old houses only or to certificated houses. They represent the main part of the Inspectors' work as regards structural amendments.

Besides the work specified in the above table, many other useful sanitary improvements have been carried out, particularly the remedying of dampness by making roofs and walls watertight and by attending to eaves guttering and spouting. Overcrowding and the improper keeping of rabbits, fowls, etc., required and received constant attention.

The level of the ground water is very near the level of the floors in some of the houses in the "marsh district," and this is one of the unsatisfactory features in that part of Eastbourne. A damp house is most unsatisfactory and upsets health in many ways, not the least important being the connection between Consumption and dampness.

The work of the additional Inspector for three months accounts for a large addition to the amendments in the Eastern District and for the number of visits scheduled in the table below.

Seven hundred and twenty-six entries were made in the Inspectors' Permanent Journal as to objectionable conditions found in certain premises—*i.e.*, as to serious defects—and 697 entries had to be carried forward to the Register of Defects to submit to the Committee to confirm notices for the abatement of nuisances.

Seven hundred and twenty-six notices were issued, as shewn in tables appended, and very many letters and reports were also written concerning nuisances on premises. In addition to the 726 notices, 545 special letters were written requesting structural amendments to be made, with a view to getting the work done without legal formalities; these 545 letters affected many more different premises, almost entirely dwelling houses. Innumerable verbal notices have been given concerning trivial nuisances, and also where nuisances required very immediate treatment.

RETURN AS TO GENERAL VISITS BY INSPECTORS IN  
ADDITION TO MANY CASUAL VISITS.

	East.	Central & West.	S. Mary's.
VISITS FOR INSPECTION OF :—			
Dwelling-houses ... ..	2365	532	357
Schools ... ..	125	9	14
Dairies, Cowsheds, etc. ... ..	49	51	23
Slaughter-houses and Butchers' Shops ...	171	85	37
Bakehouses ... ..	65	73	5
Fruiterers, Fishmongers, etc. ... ..	120	126	10
Stable and other Premises ... ..	636	500	97
Factories, Workshops and Work-places ...	386	512	14
Visits in connection with Notifications ...	444	544	288
Premises in which Drains have been tested ...	708	546	376

Notices Issued.

EAST DISTRICT.

	No. Issued.	No. com- plied with.	No. lapsed.	No. out- standing.
<i>a</i> Sec. 91 of Public Health Act ...	197	157	—	40
<i>b</i> Sec. 36     "     "     " ...	78	70	—	8
<i>c</i> Sec. 41     "     "     " ...	39	37	—	2
<i>f</i> Sec. 46     "     "     " ...	95	95	1	—
<i>g</i> Sec. 34     "     "     " ...	—	—	—	—
Totals ... ..	409	359	1	50

## CENTRAL DISTRICT.

	No. Issued.	No. com- plied with.	No. lapsed.	No. out- standing.
<i>a</i> Sec. 91 of Public Health Act ...	62	47	—	15
<i>b</i> Sec. 36        „        „        ...	20	19	—	1
<i>c</i> Sec. 41        „        „        ...	—	—	—	—
<i>d</i> Sec. 49        „        „        ...	3	3	—	—
<i>f</i> Sec. 46        „        „        ...	—	—	—	—
<i>g</i> Sec. 34 Factories & Workshops Act        ...        ...        ...	—	—	—	—
Totals ..        ...        ...	85	69	—	16

## WEST DISTRICT.

	No. Issued.	No. com- plied with.	No. lapsed.	No. out- standing.
<i>a</i> Sec. 91 of Public Health Act ..	4	4	—	—
<i>c</i> Sec. 36        „        „        ...	4	4	—	—
<i>f</i> Sec. 46        „        „        ...	—	—	—	—
Totals ...        ...        ...	8	8	—	—

## ST. MARY'S DISTRICT.

	No. Issued.	No. com- plied with.	No. lapsed.	No. out- standing.
<i>a</i> Sec. 91 of Public Health Act ...	91	81	—	10
<i>b</i> Sec. 36        „        „        ...	24	21	—	3
<i>c</i> Sec. 41        „        „        ...	19	19	—	—
<i>d</i> Sec. 49        „        „        ...	3	3	—	—
<i>f</i> Sec. 46        „        „        ...	61	60	—	1
<i>g</i> Sec. 34 Factories & Workshops Act        ...        ...        ...	3	—	—	3
Totals ...        ...        ...	201	184	—	17

*a* To abate Nuisances of various sorts, including overcrowding (Sec. 91 Public Health Act).

*b* To provide proper closets, dustbins, etc.

*c* To re-lay and repair defective drains.

*d* To remove offensive accumulations.

*f* To cleanse, disinfect, etc., houses.

*g* To limewash, etc., bakehouses.

## SANITARY CERTIFICATES.

During 1909, 48 new Sanitary Certificates were issued—that is to say, in 48 houses the up-to-date regulations for the Certificate were complied with. The numbers issued in the immediate previous years were 56, 45, 55, 50, 55, 91, 62, and 70 respectively. The total number now issued is 1,417, and only a few of these have been second issues for the same house, so that about 1,400 houses have now been brought so thoroughly up-to-date as to receive the Certificate. The remainder are well looked after, and could in most cases be made fit to be certified for a small outlay.

Thirty-six old Certificates have been endorsed during 1909 after thorough re-examination and re-testing of the house drainage, etc.

The procedure after Certificates have been in existence for three years is to send copies of a circular to owners or occupiers, reminding them that three years have elapsed since the issue of the Certificate and offering re-examination and re-testing. If the owner requires a totally new Certificate, then he must comply with the requirements now in force, but if he elects to have the old Certificate endorsed simply, then the soil-pipes, drains, etc., must be re-tested with the former tests and proved quite sound, and the fittings must be in good working order.

The Sanitary Certificate of the Borough of Eastbourne is now a well-established item in the sanitary world, and there have been many imitations.

One of the chief advantages of these Certificates is that they ensure a good system of drain-laying and plumbing in all work, whether for Certificate or not, because the men are accustomed to work for Certificates. House sanitation in general is, therefore, brought to a higher standard than it otherwise would be.

### SCHOOL SANITATION.

All the Elementary Schools of the Borough have been frequently visited by myself, both as Medical Officer of Health and as School Medical Officer. Dr. Oberdorfer has constantly been at the schools. They have been frequently visited by the Sanitary Inspectors and any defects noticed have been remedied. They all have their water supplies from the public service. Most of the private schools in the Borough have also been visited.

A special report on the Elementary Schools will be issued in accordance with the Board of Education's instructions.

### HOUSING OF THE WORKING CLASSES ACT.

No steps have been taken under this Act during 1909.

### REFUSE REMOVAL.

Ordinary house refuse is removed once weekly by the Corporation from all houses, and twice weekly during the months of July, August, and September. Fish and similar refuse from shops is removed daily, except on Sundays, and there are two collections on Saturdays. The whole is burnt at the Refuse Destructor.

In 1898 the removal of House Refuse was transferred to the Sanitary Department, and for the first time a systematic weekly collection was instituted.

In 1900 the extra summer collection commenced.

In 1906 the small part of the Borough hitherto cleared by a Contractor was included with the rest of the Borough for Corporation collection.

Each improvement in the system of collection and its frequency has been coincident with a decrease of illness and death, especially from diarrhœa.

The vigorous crusade of the past few years against insanitary dustbins has been still carried on and has contributed to the improved results.

At the end of 1907 the superintendence was re-transferred to the Borough Engineer, it being properly a matter for his Department, and the conditions under which I temporarily arranged it having changed.

#### SLAUGHTER-HOUSES AND MEAT INSPECTIONS.

There is no Public Abattoir in Eastbourne, and hence complete supervision of slaughtering and of meat is not practically possible.

There are four Slaughter-houses only in Eastbourne ; three in the East Ward—namely, The Crumbles, Latimer Road and Bourne Street Slaughter-houses—and one in St. Mary's Ward—namely, Upwick Slaughter-house. These Slaughter-houses are all private.

Though not entirely satisfactory, especially those at Upwick and on the Crumbles, there is nothing in the absence of a Public Abattoir to prevent their being licensed annually. No written complaints have been received about them during 1909.

Most of the meat consumed in Eastbourne is slaughtered outside the Borough—that from such places as Deptford is adequately supervised ; but in some other places from which meat comes supervision is the reverse of efficient.

#### UNSOUND FOOD.

As far as it can be done by the Sanitary Department, all meat slaughtered in Eastbourne is inspected, but the numerous other duties of the Staff make it impossible for the whole of the slaughtering to be watched, and most carcasses are put on the market without being seen at the slaughter-house. Inspection of the food in the shops is, however, regularly carried on. Mr. Henderson has the certificate of the Sanitary Institute for Meat Inspectors.

The following seizures and surrenders of unsound food were made in 1909 :—

1. 18lbs. salted beef ... .. (surrendered)
2. 1cwt. fish (haddock and plaice) ... .. „
3. 14 cod, 10 haddocks, 81 wiches ... (seized)
4. About  $1\frac{1}{2}$ lbs. pork,  $2\frac{1}{2}$ lbs. mutton,  
and 1 bullock's melt... .. „

In case 3 the defendant was fined £2 and costs.

In case 4 the defendant was fined £2 and 6s. costs.

### Sale of Food and Drugs Acts.

Under these Acts in 1909, 163 samples of food were taken and 153 were genuine, 10 being unsatisfactory. This percentage of adulterated or "preserved" samples—viz., 6·1—is a satisfactory one. It compares favourably with the last published one for the country generally—viz., 8·1 % in the year 1907.

A full list of the samples is given at the close of these notes.

No particular samples call for remark save those of soda water and, as usual, those of milk.

#### SODA WATER.

Thorough investigation into the case where the water was certified to be contaminated with sewage shewed circumstances which made it inadvisable to take proceedings. The premises and method of manufacture were very satisfactory, and owing to the use of two vessels after the bottle itself, it was evidently probable that an accident might have been the cause of the contamination, particularly as other aerated water from the same batch proved satisfactory.

The other two cases were minor ones, and the attention of the manufacturers was called to the unsatisfactory nature of their soda water.

#### MILK.

This universal article of food is the one that is most frequently and seriously interfered with through accident, negligence, and fraud. It can come from a diseased cow, it can be polluted during transmission to the consumer through accident or fraud, and it is often not properly kept when in the consumer's house.

Twelve of the 84 samples taken during 1909 were not satisfactory, and this list might have been increased had a very complete examination taken place in each instance.

Although various samples were examined bacteriologically, none were found to contain the tubercle bacillus. This is decidedly satisfactory in view of the large number of instances where the tubercle bacilli has been found in milk in other places.

It is satisfactory to report that during 1909 there were no instances of preservatives being added to milk. This procedure seems to be stamped out in Eastbourne, thanks to the action of the Magistrates in dealing with the cases in previous years that have been brought before them. It is, moreover, a proof that preservatives are utterly unnecessary, apart from the question of danger to health.

The samples which have been submitted to bacteriological analysis shewed that sufficient care as to cleanliness was not taken at the farms in some instances. There were none sufficiently bad for legal proceedings, and the procedure adopted was to ascertain the location of the respective farms and to leave the matter in the hands of the local Medical Officer of Health. Dr. Stott has then taken the proper steps.

As usual, the majority of cases of fraudulent sophistication of milk were instances of depriving the milk of its fat. In one instance water was added to the extent of 32 parts in every 100, and this, like two others of the seven instances of adulteration, was due to action on the part of persons before the milk was sent into the Borough. It ought not to be necessary to point out, but I think it is, that it takes a very large fine to punish a person sufficiently for adding 32% of water to milk. In addition to the very large profit made by fraudulently selling water as milk, considerable damage must be caused to invalids and others who are taking the milk as genuine. The profit made by adding water to milk is not, I think, sufficiently taken into account when fines are being inflicted. In the above case much more than 32% of water was probably added, for the standard on which this calculation is made is already a low one.

## ANALYSES, 1909.

Foodstuffs.	Samples taken.	Returned as		
		Genuine	Adulterated.	
Milk ... ..	84	78	6	1 deprived of 20% of fat. 1 " 6 $\frac{7}{8}$ % " added water 9 $\frac{1}{4}$ parts in every 100 parts. 1 deprived of 16 $\frac{7}{8}$ % of fat, added water 32 parts do. 1 deprived of 6 $\frac{7}{8}$ % of fat and 15% added water. 1 deprived of 16 $\frac{7}{8}$ % of fat. 1 added water 9 $\frac{1}{8}$ % 12% of added water. 1 soda water contaminated with sewage 1 do. not made with pure water 1 do. " "
Skim Milk ... ..	1	—	1	
Soda ... ..	9	6	3	
Butter ... ..	25	25	—	
Cheese ... ..	2	2	—	
Margarine ... ..	3	3	—	
Lard... ..	3	3	—	
Coffee ... ..	1	1	—	
Cocoa ... ..	2	2	—	
Pepper ... ..	1	1	—	
Ginger ... ..	3	3	—	
Brandy ... ..	5	5	—	
Whiskey ... ..	7	7	—	
Gin ... ..	1	1	—	
Rum ... ..	4	4	—	
Cherry Cider ... ..	1	1	—	
Kops Ale ... ..	1	1	—	
Lemonade ... ..	3	3	—	
Lemon Squash ... ..	2	2	—	
Kola Champagne ... ..	1	1	—	
Prescriptive Medicine	3	3	—	
Ammoniated Tinct.				
Quinine ... ..	1	1	—	
Totals... ..	163	153	10	

## UNOFFICIAL SAMPLES, 1909.

Foodstuffs, etc.	Samples taken.	Returned as		Results.
		Genuine	Adulterated.	
Soda Water... ..	1	—	—	Unsatisfactory as to cleanliness.
Blackberry Jam ... ..	1	—	—	Contained poison produced from the metallic vessel.

In the first case the necessary caution to the manufacturer was given.

In the case of the jam, the remainder of the batch was thrown away. Illness had been caused in a family from eating the jam, which was made from a private source.

### Legal Proceedings for the Year 1909.

No.	Nature of Offence.	Date of Hearing	Result.
1	Selling milk which was deficient in milk fat to the extent of 20%	July 12	Fined £5 inclusive
2	Selling skim milk which consisted of 88 parts of genuine skim milk and 12 parts of added water	"	Summons withdrawn on payment of costs (11s.)
3	Selling milk which was deficient in milk fat to the extent of 6·7% and contained 9·41% of added water	Nov. 15	Fined 30s. inclusive
4	Selling milk which was deficient in milk fat to the extent of 16·7% and contained 32% of added water	"	Fined £4
5	Selling milk which was deficient in milk fat to the extent of 6·7% and contained 15% of added water	"	Fined £2
6	Selling milk which contained 9·18% of added water	July 12	Fined £2 and costs
7	Selling milk which was deficient in milk fat to the extent of 16·7%	"	Fined £4 inclusive
8	Exposing certain meat which was unsound	May 28	Fined £2 and costs
9	Exposing for sale certain fish which were unsound	June 4	Fined £2 and 6/- costs
10	Overcrowding	July 5	Order made on payment of 7/- costs
11	Failing to comply with a notice to abate a nuisance	Feb. 2	Order made to comply
12	Failing to obey an order to abate a nuisance	Mar. 17	Case adjourned
13	Failing to obey an order to abate a nuisance in adjourned case	Mar. 24	Fined 10/-

## DAIRIES, COWSHEDS AND MILKSHOPS ORDERS OF 1885-6.

The regulations under these Orders have received constant attention throughout the year.

Those Cowsheds and Dairies in the Borough are in good condition.

	East District.	Central District.	West District.	S. M'ry's District.	Total.
Number of Dairies on Register...	12	11	4	4	31
„ Cowsheds „ ...	1	—	2	4	7
„ Milkshops „ ...	51	14	6	10	81
Infectious Diseases among Em- ployés ... ..	—	3	—	—	3
Infectious Disease on Premises ...	—	—	1	—	1
Notice to Abate Nuisance ...	3	—	—	3	6
Number registered in 1909 ...	13	2	—	1	16
Number removed from Register in 1909 ... ..	7	1	—	—	8

## OVERCROWDING.

In 1909 there has been rather more overcrowding than during the past few years. Unemployment has been one of the causes.

It is likely that visits made about midnight would disclose still more cases.

Twenty Notices have been served to abate overcrowding, and in one instance legal proceedings were necessary. All the cases were in the Eastern District and particularly in Winter and Dennis Roads.

## OFFENSIVE TRADES.

The “Offensive Trades” of Eastbourne are few in number. Altogether there are 5 premises where such trades are carried on, generally Marine Stores.

## MORTUARY.

This well-equipped building, adjoining the Town Hall, is under the management of the Police.

## CELLAR DWELLINGS.

These do not exist in Eastbourne.

## PUBLIC BATHS.

There are two sets of Public Baths in the Borough—viz., in Seaside and in the Old Town—and one Municipal Swimming Bath in the Old Town.

*Seaside Baths.*—The numbers using these Baths are shewn in the returns below:—

Year.	Baths used by—			Total.
	Men.	Women.	Children.	
1903	... 9110	2415	592	12117
1904	... 10773	2834	561	14168
1905	... 10800	2976	578	14354
1906	... 11361	3225	623	15209
1907	... 10201	2850	480	13531
1908	... 10949	3380	580	14859
1909	... 10478	3470	750	14698

The receipts for 1909 were £195 17s. 7d.

The loss for the year ended 31st March, 1909, on these Baths was £114 18s. 2d., but there is a great gain as regards sanitation, and very few baths ever pay their way.

Of the £114 18s. 2d., £71 9s. 10d. was the expenditure on Capital Charges, leaving £43 8s. 4d. as the excess of expenditure over income.

A Census of bathers was taken with a view to enlargement, but this was found to be unnecessary. Re-arrangement of boilers has been carried out which will enable baths to be given more quickly when there is a rush, as on Saturday nights.

*Old Town Baths.*—These were opened Jan. 5th, 1905.

Year.	Baths used by—				Total.
	Men.	Women.	Children.		
1905	... 3057	522	689		4268
1906	... 4060	704	562		5326
1907	... 4275	691	408		5374
1908	... 4712	929	423		6064
1909	... 4678	817	468		5963

*Swimming Bath—*

1905	...	5902	597	4146	10645
1906	...	6200	865	4215	11280
1907	...	6385	1574	3303	11262
1908	...	6749	1860	5114	13723
1909	...	{ 3719 1400*	{ 1105 1000*	4147	{ 8971 2400*

\* Estimated number of Swimmers who used Books of Tickets.

Of the children using the Swimming Bath, 2,648 were boys, and 1,463 girls.

It is disappointing to find that the use of these baths diminished in 1909, even after allowing for season ticket holders. The weather was not propitious for swimming baths, and the baths were closed for a longer period for repairs in 1909.

The total expenditure for the year ending March 25th, 1909, was £822 9s. 5d., the income £245 7s. 6d. Deducting capital charges of £278 12s. 3d., the excess of expenditure over income was £298 11s. 8d.

The Swimming Bath, lined with white tiles and glazed bricks, is 60ft. long and is provided with water from a well on the premises, so that the water can be changed whenever necessary at a very small cost.

Lessons are given, and many, including ladies and children especially, have learned to swim. Life-saving classes are held, and the bath has continued to be very useful. The Swimming Club officials and some of the Elementary School teachers have kindly helped to make the Swimming Bath a success.

Premises Receiving Constant Inspection and  
Attention during the Year.

1909.

## EAST DISTRICT.

Number of Bake-houses	...	...	...	...	21
„ Cowsheds	...	...	...	...	1
„ Farm Yards	...	...	...	...	3
„ Dairies and Milkshops	...	...	...	...	63
„ Private Stables	...	...	...	...	90
„ Livery Stables	...	...	...	...	8
„ Piggeries	...	...	...	...	4
„ Slaughter-houses	...	...	...	...	3
„ Offensive Trades	...	...	...	...	5

## CENTRAL AND WEST DISTRICT.

Number of Bake-houses	...	...	...	...	20
„ Cowsheds	...	...	...	...	2
„ Farm Yards	...	...	...	...	2
„ Dairies and Milkshops	...	...	...	...	27
„ Private Stables	...	...	...	...	188
„ Livery Stables	...	...	...	...	25
„ Piggeries	...	...	...	...	3
„ Slaughter-houses	...	...	...	...	—
„ Offensive Trades	...	...	...	...	—

## ST. MARY'S DISTRICT.

Number of Bake-houses	...	...	...	...	8
„ Cowsheds	...	...	...	...	4
„ Farm Yards	...	...	...	...	4
„ Dairies and Milkshops	...	...	...	...	13
„ Private Stables	...	...	...	...	85
„ Livery Stables	...	...	...	...	4
„ Piggeries	...	...	...	...	6
„ Slaughter-houses	...	...	...	...	1
„ Offensive Trades	...	...	...	...	—

### Office Work during 1909.

Calls and Communications received and entered	... 4256
Letters and Reports written	... .. 910
Entries made in Inspectors' Journal	... .. 726
Entries made in Register of Defects and Nuisances	... 697
Notices Issued	... .. 726
Entries made in Register of Samples taken	... .. 163
Returns of Inspectors' Work made to Committee	... 12
Entries made in "Report Book" on Infectious Cases...	509
Monthly Returns on the Health of Eastbourne to Members of Sanitary Committee and others	... 216
Sanitary Certificates Issued	... .. 48
Sanitary Certificates Endorsed	... .. 36
Entries made in Register of Cowsheds and Dairies	... 16
Entries made in Register of Bake-houses	... .. 143
Entries made in Register of Slaughter-houses	... .. 4
Licenses Issued for the same	... .. 4
Entries made in Register of Unsound Food	... .. 5
Entries made in Register of Letters requesting Amend- ments	... .. 545
Letters written requesting Amendments to be made	... 545
Samples of Eastbourne Water taken for Analysis by Public Analyst	... .. 6
Samples of Water taken for Analysis by Medical Officer	52
Cleansing Certificates given	... .. 187
Passes for visiting Sanatorium (grounds only)...	... 599

### Factory and Workshop Acts.

As usual, and in accordance with the Home Office instructions, I submit in tabular form a summary of the working of these Acts as far as they concern the Sanitary Authority.

I have had, as usual, great difficulty in getting correct and complete lists of outworkers, in spite of the issuing of warning circulars and even the printed forms. The difficulty was so great that in 1908 I wrote to the Home Office and asked whether wholesale legal proceedings should be taken, and, if so, by whom—the Local Authority or the Home Office. The Factory Inspector of the district kindly called at the Town Hall, and also at some of the Workshops, but there are no better returns.

Not only are lists not properly sent in to me, but they are also not properly kept at the places distributing the work. The total number of outworkers is not, however, great.

## FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

### I.—INSPECTION.

Premises.	Number of	
	Inspections.	Written Notices.
Factories ... .. (Including Factory Laundries).	59	5
Workshops ... .. (Including Workshop Laundries).	509	31
Workplaces ... ..	519	12
Total ... ..	1087	48

### II.—DEFECTS FOUND.

Particulars.	Number of Defects.	
	Found.	Remedied.
<i>Nuisances under the Public Health Acts :—</i>		
Want of cleanliness ... ..	49	49
Want of ventilation ... ..	3	3
Overcrowding ... ..	1	1
Want of drainage of floors ... ..	2	2
Other nuisances ... ..	21	21
Sanitary accommodation insufficient ... ..	2	2
"          "          unsuitable or defective ... ..	44	44
"          "          not separated for sexes ... ..	1	1
Offences under the Factory and Workshop Act, excluding outwork ... ..	3	3
Total... ..	126	126

## III.—OTHER MATTERS.

Class.	Number.	
Matters notified to H.M. Inspectors of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (Sec. 133) ... ..	—	
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (Sec. 5). Notified by H.M. Inspector ... ..	1	
Underground Bakehouses (Sec. 101) :—		
In use during 1909 ... ..	12	
Certificates granted in 1909 ... ..	Nil	
	Number of	
Homework :—	Lists.	Out-workers.
<i>Lists of Outworkers</i> (Sec. 107) :—		
Lists received ... ..	2	5
Homework in unwholesome or infected premises :—	Wearing Apparel.	Other.
Notices prohibiting homework in unwholesome premises (Sec. 108) ... ..	—	—
Cases of Infectious Diseases notified in homeworkers' premises ... ..	2	—
Workshops on the Register at the end of 1909 ... ..	560	
Bakehouses ... ..	48	
Total number of Workshops on Register... ..	608	

## Bake-houses.

The various bake-houses of the Borough have received full attention during the year. They have all been white-washed, etc., in May and November.

There are 12 underground bake-houses within the Borough.

I submit a list of the various workshops and workplaces in the Borough arranged according to districts.

There are also very many small premises hardly possible to be included among workshops and workplaces which have received constant attention during the year.



## EASTERN DISTRICT.

Business.	Factory.	Workshop.	Workplace.
Bakehouses ... ..	1	21	—
Boat Builders ... ..	—	1	—
Basket and Trunk Makers ... ..	—	2	—
Bootmakers ... ..	2	15	—
Breweries and Bottling Stores ... ..	1	—	—
Brickyards ... ..	1	—	1
Carpet-Beating Works ... ..	2	—	—
Carpenters, Cabinet Makers, etc. ... ..	1	9	—
Coach Smiths, Trimmers, etc. ... ..	1	2	—
Clay Pipe Manufacturers ... ..	—	1	—
Confectioners ... ..	—	1	—
Cutlers ... ..	1	—	—
Cycle Makers and Motor Car Repairers ... ..	2	4	—
Dairymen ... ..	—	—	10
Destructor Works ... ..	—	—	1
Dressmakers and Milliners ... ..	—	6	—
Electricity Works ... ..	1	—	—
Engineers ... ..	4	1	—
Electro-Platers ... ..	1	—	—
Firewood Works ... ..	3	1	—
Fish Friers ... ..	—	6	—
Gas Works ... ..	—	—	1
Laundries ... ..	11	19	—
Mineral Water Manufacturers ... ..	1	—	—
Marine Stores ... ..	—	—	5
Market Gardens and Nurseries ... ..	—	—	4
Plumbers and Gas Fitters ... ..	—	2	—
Photographers ... ..	—	3	—
Printers ... ..	2	—	—
Restaurants ... ..	—	—	5
Saddlers .. ...	—	2	—
Stables ... ..	—	—	17
Shoeing and General Smiths... ..	—	7	—
Stonemasons ... ..	—	—	1
Timber Merchants ... ..	2	—	—
Tailors ... ..	—	14	—
Upholsterers ... ..	—	2	—
Watch and Clock Repairers ... ..	—	3	—
Totals ... ..	37	122	45

## WEST AND CENTRAL DISTRICTS.

Business.	Factory.	Workshop.	Workplace.
Basket and Trunk Makers ... ..	—	5	—
Bakers and Confectioners ... ..	—	18	—
Bookbinders ... ..	2	—	—
Bootmakers and Repairers ... ..	1	24	—
Brewery ... ..	1	—	—
Builders and Builders' Merchants ... ..	6	14	3
Carpenters, Cabinetmakers, etc. ... ..	7	43	—
Coachbuilders, Trimmers, and Smiths ... ..	—	8	—
Carpet Planner ... ..	—	1	—
Corset Makers ... ..	—	3	—
Corn Stores ... ..	—	—	1
Cutlers ... ..	2	—	—
Cycle Makers and Repairers ... ..	2	9	—
Dairymen ... ..	—	—	11
Dress and Mantle Makers ... ..	—	31	—
Electricians ... ..	—	17	—
Engineers ... ..	2	5	—
Fancy Needlework ... ..	—	2	—
Fire-extinguisher Manufactory ... ..	—	1	—
Fish Frying ... ..	—	—	2
Fishing-rod Maker ... ..	—	1	—
French Polishers ... ..	—	2	—
Fruiterers' Stores ... ..	—	—	4
Gasfitters ... ..	—	24	—
Gymnasiums ... ..	—	—	3
Grocery Stores ... ..	—	—	8
Hairdressers and Wig Makers ... ..	—	10	—
Jewellers and Watchmakers ... ..	—	12	—
Laundries ... ..	1	3	—
Leaded Light Works ... ..	—	2	—
Milliners ... ..	—	20	—

## WEST AND CENTRAL DISTRICTS—Continued.

Business.	Factory.	Workshop.	Workplace.
Mineral Water Factory ... ..	1	—	—
Motor Engineers ... ..	5	—	—
Motor Garages ... ..	—	—	4
Nursery Gardener ... ..	—	—	1
Painters ... ..	—	24	—
Photographers ... ..	—	10	—
Piano Repairers ... ..	—	3	—
Picture-frame Makers ... ..	—	7	—
Plumbers, etc. ... ..	—	24	—
Pork Butchers (Motive Power) ... ..	3	—	—
Printers ... ..	12	—	—
Relief Stamper ... ..	—	1	—
Restaurant and Hotel Kitchens ... ..	—	—	23
Saddlers ... ..	—	3	—
Scale Makers ... ..	—	1	—
Sign Writers ... ..	—	4	—
Smiths, Fitters, etc. ... ..	—	23	—
Stables ... ..	—	—	31
Stonemasons ... ..	1	—	—
Tailors ... ..	—	17	—
Telephone Exchange... ..	—	—	1
Umbrella Makers ... ..	—	4	—
Undertakers ... ..	—	2	—
Upholsterers and Bedding Makers ... ..	1	16	—
Water Works (Pumping Station) ... ..	1	—	—
Window Blind Makers ... ..	—	2	—
Wheelwrights... ..	—	3	—
Wine Cellars ... ..	—	—	4
Wood Carvers and Turners ... ..	3	2	—
Firewood Choppers ... ..	—	1	—
Totals ... ..	51	401	96

## ST. MARY'S DISTRICT.

Business.	Factory.	Workshop.	Workplace.
Bakehouses ... ..	1	7	—
Bottling Stores ... ..	3	—	—
Breweries ... ..	1	—	—
Bootmakers ... ..	—	10	—
Carpenters, Cabinet Makers, etc. ... ..	1	14	—
Coach Smiths... ..	—	2	—
Cycle Works ... ..	—	3	—
Dressmakers and Milliners ... ..	—	14	—
Flour Mills (Steam) ... ..	1	—	—
Firewood Works ... ..	1	—	—
Furniture Stores ... ..	—	—	1
Laundries ... ..	3	10	—
Mineral Water Works ... ..	2	—	—
Nursery Gardens ... ..	—	—	3
Plumbers ... ..	—	8	—
Saddlers ... ..	—	2	—
Shoeing and General Smiths ... ..	—	3	—
Stables ... ..	—	—	7
Stonemasons ... ..	—	1	—
Tailors ... ..	—	6	—
Upholsterers ... ..	—	2	—
Wheelwrights ... ..	—	3	—
Water Works (Pumping Station) ... ..	1	—	—
Total ... ..	14	85	11



# APPENDIX.

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**Local Government Board and other Tables.**

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1909 AND PREVIOUS YEARS.												
Year.	Population estimated to middle of each year.	Births.		Total Deaths registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett deaths at all ages belonging to the District.	
		Number.	Rate.*	Under 1 year of age.		At all ages.					Number.	Rate.*
				Number.	Rate per 1 000 births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1899	41,750	936	22'3	136	145	566	13'50	68	33	—	533	12'37
1890	42,500	892	20'9	108	121	501	11'78	80	45	—	456	10'72
1901	43,500	907	20'8	94	104	498	11'45	77	17	—	481	11'05
1902	44,250	907	20'5	101	111'3	541	12'23	81	21	—	520	11'75
1903	45,000	900	20'0	97	107'8	495	11'0	84	22	—	473	10'51
1904	45,750	963	21'05	89	92'4	480	10'49	72	16	—	464	10'14
1905	46,500	853	18'34	87	101'9	496	11'22	97	26	—	496	10'69
1906	49,000	892	18'2	79	88'5	524	10'69	107	31	—	493	10'00
1907	50,500	871	17'25	92	105'6	555	10'99	104	26	—	509	10'47
1908	51,500	951	18'46	83	87'2	510	9'90	98	27	10	493	9'57
Averages for years 1899-1908	46,025	907'2	19'78	94'6	105'67	516'6	11'325	86'8	26'4	10	491'8	10'727
1909	52,000	876	16'84	71	81'5	552	10'61	124	22	18	548	10'5

\* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

TABLE II.

## Vital Statistics of separate Localities in 1909 and previous years.

Names of Localities.	1.—WHOLE DISTRICT.				2 —EAST DISTRICT.				3.—CENTRAL DISTRICT.				4 —WEST DISTRICT.				5.—ST. MARY'S DISTRICT.			
	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1899 ...	41,750	936	556	136	15,640	517	229	78	10,885	158	107	20	6,443	35	41	—	8,782	226	189	38
1900 ...	42,500	892	501	108	16,033	510	195	61	10,980	146	100	22	6,519	29	44	2	9,038	207	162	23
1901 ...	43,500	907	498	94	16,488	498	178	61	10,997	164	111	13	6,657	26	49	2	9,388	219	160	18
1902 ...	44,250	907	541	101	17,424	541	246	66	9,738	121	115	15	6,146	40	49	4	10,942	205	110	16
1903 ...	45,000	900	495	97	17,834	563	229	59	9,748	111	89	10	6,206	29	46	4	11,212	197	131	24
1904 ...	45,750	963	480	89	18,357	581	209	59	9,773	120	95	6	6,227	35	39	3	11,393	227	12	21
1905 ...	46,500	853	496	87	18,601	499	216	59	9,829	94	109	10	6,367	35	58	3	11,703	225	113	15
1906 ...	49,000	892	524	79	19,556	525	234	55	9,925	115	92	7	6,861	28	43	2	12,658	224	124	15
1907 ...	50,500	871	555	92	20,512	556	251	61	9,997	103	117	6	6,641	32	35	3	13,350	180	126	22
1908 ...	51,500	951	510	83	20,828	585	233	59	10,027	110	95	6	6,762	29	32	3	13,883	227	123	11
Averages of years 1899 to 1908	46,025	907.2	516	96.6	18,127	537.5	220	62	10,190	124	103	11.5	6,483	31.8	43.6	2.0	11,234	214	136	20
1909 ...	52,000	876	552	71	20,960	512	248	54	10,040	105	107	3	6,820	38	51	1	14,180	221	124	12

There were Twenty-two Deaths of Non-Residents in Institutions.

TABLE III.

Cases of Infectious Disease notified during the year 1909.

Notifiable Diseases.	Cases notified in whole District.						Total cases notified in each locality.				No. of cases removed to Hospital from each locality.			
	At all ages.	At Ages—Years.					East Ward. 1	Centrl Ward 2	West Ward. 3	St. Mary's Ward. 4	East Ward. 1	Centrl Ward 2	West Ward. 3	St. Mary's Ward. 4
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.								
Small-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup) .....	263	..	49	172	21	20	124	40	4	95	122	39	3	94
Erysipelas .....	15	1	..	..	..	11	6	1	..	8	..	..	..	..
Scarlet Fever .....	222	..	40	137	30	15	103	23	12	84	103	23	12	82
Typhus Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever .....	9	..	..	1	3	5	3	2	1	3	2	2	1	3
Relapsing Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals .....	509	1	89	310	54	51	236	66	17	190	227	64	16	179

TABLE IV.  
Weekly Notifications of Infectious Diseases, 1909.

Week.			Small-pox.	Diphtheria.	Erysipelas.	Scarlet Fever.	Typhoid Fever.	Puerperal Fever.	Totals.
No.	Date of Ending.								
1	January	2...	...	...	...	3	...	...	3
2	"	9...	...	5	2	4	...	...	11
3	"	16...	...	4	...	7	1	...	12
4	"	23...	...	7	...	3	...	...	10
5	"	30...	...	9	...	5	...	...	14
6	February	6...	...	13	1	3	...	...	17
7	"	13...	...	5	...	6	...	...	11
8	"	20...	...	9	...	2	...	...	11
9	"	27...	...	8	...	7	...	...	15
10	March	6...	...	2	1	3	...	...	6
11	"	13...	...	...	...	4	...	...	4
12	"	20...	...	5	1	5	...	...	11
13	"	27...	...	1	...	3	1	...	5
14	April	3...	...	4	2	8	...	...	14
15	"	10...	...	4	...	5	...	...	9
16	"	17...	...	3	...	8	...	...	11
17	"	24...	...	4	...	6	...	...	10
18	May	1...	...	1	...	3	...	...	4
19	"	8...	...	5	...	5	...	...	10
20	"	15...	...	5	2	8	...	...	15
21	"	22...	...	7	1	6	1	...	15
22	"	29...	...	4	...	4	...	...	8
23	June	5...	...	8	...	5	...	...	13
24	"	12...	...	4	...	1	...	...	5
25	"	19...	...	1	...	7	...	...	8
26	"	26...	...	5	...	2	...	...	7
27	July	3...	...	2	1	4	...	...	7
28	"	10...	...	5	...	5	...	...	10
29	"	17...	...	4	...	2	...	...	6
30	"	24...	...	7	...	5	...	...	12
31	"	31...	...	2	...	5	...	...	7
32	August	7...	...	2	...	1	...	...	3
33	"	14...	...	6	...	1	...	...	7
34	"	21...	...	5	...	4	2	...	11
35	"	28...	...	2	...	5	...	...	7
36	September	4...	...	...	...	2	...	...	2
37	"	11...	...	4	...	4	...	...	8
38	"	18...	...	3	...	4	1	...	8
39	"	25...	...	7	...	2	...	...	9
40	October	2...	...	4	...	7	...	...	11
41	"	9...	...	6	2	5	...	...	13
42	"	16...	...	12	...	1	...	...	13
43	"	23...	...	7	...	6	...	...	13
44	"	30...	...	5	...	6	...	...	11
45	November	6...	...	4	...	2	...	...	6
46	"	13...	...	9	1	3	1	...	14
47	"	20...	...	12	1	2	...	...	15
48	"	27...	...	5	...	12	1	...	18
49	December	4...	...	8	...	2	1	...	11
50	"	11...	...	8	...	2	...	...	10
51	"	18...	...	1	...	1	...	...	2
52	"	25...	...	4	...	2	...	...	6
	After December 25		...	6	...	4	...	...	10
Totals ... ..			...	263	15	222	9	...	509

TABLE V.  
Notifications of Infectious Disease. Returns for 1905—1909.

YEAR.	1905.				1906.				1907.				1908.				1909.			
	1	2	3	4	Year.	1	2	3	4	Year.	1	2	3	4	Year.	1	2	3	4	Year.
Diphtheria.....	5	10	10	6	31	5	5	4	5	19	4	4	7	39	54	63	33	52	110	258
Scarlet Fever.....	3	12	8	46	69	54	29	20	45	148	23	32	24	55	134	29	38	30	51	148
Enteric Fever .....	...	...	4	1	5	...	2	4	2	8	1	...	...	...	1	1	...	2	4	7
Puerperal Fever ....	...	2	...	...	2	...	1	...	...	1	1	...	...	...	1	...	...	...	...	...
Erysipelas .....	12	9	5	9	35	8	13	5	6	32	12	4	7	4	27	7	11	3	7	28
Membranous Croup ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small Pox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total .....	20	33	27	62	142	67	50	33	58	208	41	40	38	99	218	101	82	87	172	442
																140	126	101	142	599

Sickness-rate for 1898 (estimated population, 41,000)—3.46.  
 " " 1899 " " 41,750—3.76.  
 " " 1900 " " 42,500—3.48.  
 " " 1901 " " 43,500—4.74.  
 " " 1902 " " 44,250—4.45.  
 " " 1903 " " 45,000—2.62.  
 Sickness-rate for 1904 (estimated population, 45,750)—2.99.  
 " " 1905 " " 46,500—3.05.  
 " " 1906 " " 49,000—4.24.  
 " " 1907 " " 50,500—4.31.  
 " " 1908 " " 51,500—8.5.  
 " " 1909 " " 52,000—9.7.

TABLE VI.

Table shewing the number of Deaths from the seven principal Zymotic Diseases in the  
10 years 1899—1908 and in the year 1909.

Disease.	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	Decennial Average.	1909.	
												Deaths.	Death- rates.
Small-Pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	19	...	1	5	10	1	...	4'3	7	0'13
Scarlet Fever	...	...	...	1	...	1	1	...	1	...	0'5	2	0'03
Whooping Cough	...	...	9	2	26	5	9	...	5	3	8'6	...	...
Diphtheria	...	...	3	3	2	2	2	2	3	14	4'3	11	0'21
Enteric Fever	...	...	3	1	3	...	1	...	...	3	1'9	3	0'05
Diarrhoea	...	...	29	7	5	15	2	9	8	16	16'6	3	0'05
Totals	...	...	44	33	36	24	20	21	18	36	36'2	26	0'50
Zymotic Death-rate per 1,000 popu- lation	...	...	1'01	0'75	1'07	0'52	0'40	0'43	0'35	0'69	0'80	0'50	...

**TABLE VII.**  
**Estimated Population, 52,000.**

1908.						1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year.
BIRTHS.	Males .. .. .	101	123	120	93	437				
	Females .. .. .	88	127	108	116	439				
	Total .. .. .	189	250	228	209	876				
	Equivalent annual rate per 1,000 persons									
	East District .. .. .	119	142	126	125	512				
	Central District .. .. .	18	38	27	27	105				
	West District .. .. .	6	9	13	10	38				
St. Mary's District .. .. .	46	66	62	47	221					
NOTIFICATIONS.	Diphtheria .. .. .	71	54	51	87	263				
	Erysipelas .. .. .	6	5	—	4	15				
	Scarlet Fever .. .. .	61	66	47	48	222				
	Enteric Fever .. .. .	2	1	3	3	9				
	Puerperal Fever .. .. .	—	—	—	—	—				
	Total .. .. .	140	126	101	142	509				
	Sickness-rate per 1,000, per annum	10.8	9.7	7.8	10.9	9.8				
DEATHS.	Males .. .. .	70	61	58	62	251				
	Females .. .. .	115	55	52	79	301				
	Total .. .. .	185	116	110	141	552				
	Non-Residents .. .. .	10	9	5	8	32				
	Corrected Total .. .. .	175	107	105	133	520				
	Both Sexes { Under 1 year .. .. .	17	19	16	18	70				
	1-5 years .. .. .	6	3	—	12	21				
	5-15 years .. .. .	8	3	6	5	22				
	15-65 years .. .. .	77	62	51	57	247				
	Over 65 years .. .. .	77	29	37	49	192				
	Equivalent annual rate per 1,000 persons	14.2	8.9	8.4	10.8	10.61				
	Death-rate, excluding deaths of visitors ..	13.4	8.2	8.0	10.2	10.9				
	Deaths under 1 year per 1,000 births	90	76	71	86	80				
	East District .. .. .	75	39	43	58	215				
	Central District .. .. .	41	18	24	20	103				
	West District .. .. .	13	8	5	10	36				
	St. Mary's District .. .. .	46	42	33	45	166				
Visitors .. .. .	10.	9	5	8	32					
CAUSES OF DEATH, &c.	Zymotic Diseases—									
	Seven principal Zymotic Diseases ..	5	4	5	9	23				
	Other Zymotic Diseases .. .. .	17	4	1	5	27				
	Dietic Diseases .. .. .	—	—	3	—	3				
	Constitutional Diseases, { Pulmonary Tuberculosis .. .. .	14	19	8	18	59				
		Other Tubercular Diseases .. .. .	8	—	—	7	15			
		Malignant Diseases .. .. .	13	14	15	8	50			
		Rheumatism and Gout .. .. .	3	1	—	1	5			
		Other Constitutional Diseases .. .. .	3	10	7	6	26			
	Premature Birth .. .. .	—	5	3	4	12				
	Old Age .. .. .	18	5	9	6	38				
	Other Developmental Diseases .. .. .	—	3	—	—	3				
	Local Diseases, { Apoplexy .. .. .	1	1	—	—	2				
		Convulsions .. .. .	2	2	—	1	5			
		Other Nervous Diseases .. .. .	9	2	6	2	19			
		Diseases of Circulatory System .. .. .	37	19	26	35	117			
		" Respiratory .. .. .	26	8	5	13	52			
		" Digestive .. .. .	17	9	9	9	44			
		" Urinary .. .. .	3	3	5	6	17			
	" Reproductive .. .. .	1	—	—	2	3				
	Other Local Diseases .. .. .	4	6	4	3	17				
	Accident, Violence and Negligence .. .. .	3	1	3	5	12				
	Ill-defined Causes .. .. .	1	—	1	1	3				
	Not Certified .. .. .	—	1	—	—	1				
	Inquests held .. .. .	11	3	8	13	35				
	Deaths in Institutions .. .. .	43	29	23	32	127				
METEOROLOGY.	Atmospheric Pressure, { Mean .. .. .	29.960	29.860	30.070	29.859	29.937				
	" Highest .. .. .	30.736	30.526	30.315	30.388	30.491				
	" Lowest .. .. .	29.096	30.359	29.468	29.152	29.519				
	Air Temperature { Mean .. .. .	39.2	55.3	59.4	48.1	50.5				
	" Highest .. .. .	52.8	74.0	79.5	58.7	63.6				
	" Lowest .. .. .	18.4	31.0	44.0	28.6	30.5				
	Earth Temperature .. .. .	41.4	51.7	60.3	50.0	50.9				
	Sea .. .. .	39.8	52.1	61.4	49.5	50.7				
	Total Rainfall (inches) .. .. .	5.85	5.50	10.74	4.35	4.61				
	Bright Sunshine (hours recorded) .. .. .	276.8	762.3	528.8	93.4	415.3				
	Wind (prevailing direction) .. .. .	N.E.	N.E.	W.	N.W.	N.W.				

TABLE VIII.  
Causes of, and Ages at Death during Year 1909.

Causes of Death.	Deaths at the subjoined ages of " Residents," whether occurring in or beyond the district.							Deaths of all ages of " Residents " belonging to Localities, whether occurring in or beyond the District.				Total deaths whether of Residents or non-" Residents " in Public Institutions in the District.
	All ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	East District.	Central District.	West District.	St. Mary's District.	
Measles ... ..	7	2	4	1	...	...	...	4	1	...	2	1
Scarlet Fever ... ..	2	...	...	2	...	...	...	...	...	...	2	1
Diphtheria and Membranous Croup...	11	...	3	6	1	1	...	6	2	...	3	11
Epidemic Influenza ... ..	20	2	1	...	1	6	10	6	6	4	4	1
Diarrhoea ... ..	3	3	...	...	...	...	...	3	...	...	...	...
Enteritis ... ..	3	2	1	...	...	...	...	3	...	...	...	1
Enteric Fever ... ..	3	...	...	1	...	2	...	1	...	...	2	2
Phthisis (Pulmonary Tuberculosis) ...	58	1	...	1	7	46	3	34	11	5	8	11
Other Tubercular Diseases ... ..	13	4	3	3	...	2	1	6	3	1	2	2
Cancer, Malignant Disease ... ..	50	...	...	1	1	28	20	17	9	3	16	14
Bronchitis ... ..	24	5	2	...	...	1	16	10	5	...	9	1
Pneumonia ... ..	24	1	2	2	...	10	9	15	5	2	2	3
Other Diseases of Respiratory Organs.	4	1	...	...	...	2	1	2	...	1	1	...
Alcoholism, Cirrhosis of Liver ...	7	...	...	...	...	6	1	3	1	1	2	...
Premature Birth...	13	13	...	...	...	...	...	8	...	1	4	...
Heart Diseases ... ..	76	...	...	1	3	35	37	29	16	8	19	15
Accidents...	5	...	...	1	1	2	1	1	...	1	1	2
Suicides ... ..	4	...	...	...	1	3	...	1	2	1	...	...
Total of above ... ..	327	34	16	19	15	144	99	149	61	28	77	65
All other causes ... ..	225	37	4	3	7	76	98	99	46	23	47	59
All causes ... ..	552	71	20	22	22	220	197	248	107	51	124	124

Twenty-two Non-Residents died in Institutions; these deaths are included in the 552, but are not ascribed to any particular district.  
The deaths in institutions of Residents are ascribed to the districts from whence they came.



TABLE IX.

## INFANTILE MORTALITY DURING THE YEAR 1909.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total Deaths under 1 Year.
ALL CAUSES— Certified..	17	5	8	2	32	6	6	3	2	3	3	4	3	2	6	1	71
Uncertified ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Common Infectious Diseases— Chicken-pox ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Measles ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	2
Diarrhoeal Diseases— Diarrhoea, all forms ..	...	...	...	...	...	...	1	...	...	...	...	1	...	...	1	...	3
Enteritis, Muco-enteritis, Gastro-enteritis ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Gastritis ...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	2
Wasting Diseases— Premature Birth ..	10	1	...	2	13	...	...	...	...	...	...	...	...	...	...	...	13
Congenital Defects ...	2	2	...	...	4	1	...	1	...	1	...	...	...	...	...	...	7
Want of Breast-milk, Starvation	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus	3	...	2	...	5	4	1	1	...	1	...	...	1	1	...	...	13
Tuberculous Diseases— Tuberculous Meningitis ..	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	2
Tuberculous Peritonitis : Tabes Mesenterica ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Other Tuberculous Diseases ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	2
Other causes— Bronchitis ..	...	1	...	...	1	...	1	...	...	...	1	1	...	1	...	...	5
Pneumonia ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Syphilis ...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Convulsions ...	...	...	...	...	...	...	1	...	...	1	...	...	1	...	1	...	4
Other Causes ...	1	1	5	...	7	...	1	...	1	...	2	...	...	...	2	...	13





